WBS No: 1DAB01 1DF0100A01 Activity ID:

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect Baseline Devl 1DAB WBS Filter

								vity Filter *		Sta		
BS No: 1D	DAB01 Title: B776 Compli	iance Surveillance										
tivity ID:	1DF0100A01	mpliance Surveillance	- Authorization					Cost Risk	2 Schedule R	Risk 3		
Line Item	n Description	Quant	tity Units	BOE Type	Labor Hours/Unit	Labor Hours Total	Labor Cost Total	Materials/ Sub Cost	Contingency & Escalation	Total Prime Cost	Burden Cost	Total Cos
)2	Inert Atmosphere - Oxvgen Analyzer	1	1.00 ea	HC	62	62	1.340	0	0	1.340	654	1.9
4	Emergency Power/UPS	1	1.00 ea	HC	84	84	2.099	0	0	2.099	1.024	3.1
5	Criticality Accident Alarm System	1	1.00 ea	HC	433	433	14.801	0	0	14.801	7.223	22.0
6	Fire Detection/Fire Suppression		1.00 ea	HC	65	65	1.337	49.123		001100	652	51.1
)7	Criticality Safety Operations	1	1.00 ea	HC	249	249	5.084	6.140	0		2.481	13.7
8	OSR Compensatory Measures		1.00 ea	HC	192	192	6.284	0		01=01	3.067	9.3
)9	LCO Coordinator		1.00 ea	HC	338	338	8.868	0			4.328	13.1
0	Routine Radiological Surveys	· · · · · · · · · · · · · · · · · · ·	1.00 ea	HC	1.789	1.789	39.180	0		001100	19.120	58.2
		Total for Ad	ctivity 1DF0100/	A01:		3.212	78.992	55.264	0	134.256	38.548	172.8
ltem A02	2 - Inert Atmosphere - Oxygen Analyzer Historical Data Source - The historical											
	Item Desc - Inert Atmosphere - Oxygen A	Analyzer:										
	Item Desc - Inert Atmosphere - Oxygen In This LCO surveillance monitors Zone 1 sensure that gloveboxes that require an A monthly surveillance is performed to	inert systems and inert atmosphere	e and are us	ed to	handle in-p	rocess pyro	ophoric plu	tonium are	monitored b	y an operab	le oxygen a	nalyzer.
	This LCO surveillance monitors Zone 1 : ensure that gloveboxes that require an A monthly surveillance is performed to	inert systems and inert atmosphere	e and are use gen analyze:	ed to	handle in-p	rocess pyro	ophoric plu ication and	tonium are	monitored b	y an operab	le oxygen a	nalyzer.
	This LCO surveillance monitors Zone 1 : ensure that gloveboxes that require an A monthly surveillance is performed to **Cost Element**	inert systems and inert atmosphere readjust the oxy	e and are uso ygen analyze:	ed to	handle in-p	rocess pyro r's specifi <i>Departr</i>	ophoric plu ication and nent	tonium are	monitored b e alarm at	y an operab	ole oxygen a rolume limit	nalyzer.
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Resources	This LCO surveillance monitors Zone 1 ensure that gloveboxes that require an A monthly surveillance is performed to Cost Element 750 STRAIGHT TIME BASE Factors 1.2 Hours per Surveillance (From v	inert systems and inert atmosphere readjust the oxy Skil 2020 ELECTRICIANS walk- 2 Electure 0.3612 82/23 050 RADIATION CO	e and are usegen analyze: (I) Stricians (27 Davs Remain (DNTROL TECHN	ed to	handle in-p manufacture KD10H 7760 14	Departs Complex Steel Oxygen A	ophoric pluication and ment Workers Analyzers	tonium are	monitored be alarm at Curve Linear	y an operab the 5% by v	ole oxygen a colume limit uantity University 53.40 Hours	inalyzer.
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urces	Cost Element	Skill	Department	Curve Ouantity Units
	750 STRAIGHT TIME BASE	C020 ELECTRICIANS	KD10H 776 Complex Steelworkers	Linear 11.56 Hours
	Factors 2 Electricians	4 hours per inspection	4 quarterly inspections	0.3612 82/227 Davs Remaining
	750 STRAIGHT TIME BASE	C020 ELECTRICIANS	KD10H 776 Complex Steelworkers	Linear 26.01 Hours
	Factors 2 Electricians	3 hours each per month for U	UPS 12 monthly inspections	0.3612 82/227 Davs Remaining
	750 STRAIGHT TIME BASE	C020 ELECTRICIANS	KD10H 776 Complex Steelworkers	Linear 17.34 Hours
	Factors 2 Electricians	2 hours per month for battery	v 12 monthly inspections	0.3612 82/227 Davs Remaining
	750 STRAIGHT TIME BASE	C020 ELECTRICIANS	KD10H 776 Complex Steelworkers	Linear 5.78 Hours
	Factors 1 annual inspection	2 Electricians	8 hours for annual battery inspection	0.3612 82/227 Davs Remaining
	751 OVERTIME BASE & PRE.	C020 ELECTRICIANS	KD10H 776 Complex Steelworkers	Linear 11.56 Hours
	Factors 2 Electricians	4 Hours per Inspection (From	m walk- 4 Quarterly Inspections	0.3612 82/227 Davs Remaining
	751 OVERTIME BASE & PRE.	C100 AUTO MECHANIC	KD10H 776 Complex Steelworkers	Linear 5.78 Hours
	Factors 1 Mechanic	4 Hours per Inspection (Monit	nitor Diesel 4 Quarterly Inspections	0.3612 82/227 Davs Remaining
	751 OVERTIME BASE & PRE.	T070 MAINT, TECHS, (INSTRUMENT TEC	KD10H 776 Complex Steelworkers	Linear 5.78 Hours
	Factors 1 Alarm Technician	4 Hours per Inspection (From	m walk- 4 Quarterly Inspections	0.3612 82/227 Days Remaining

Rockv Flats Closure Project
Baseline Cost and Basis of Estimate

Proiect Baseline Devl WBS Filter 1DAB Activity Filter *

Starts In FY

Line Item A05 - Criticality Accident Alarm System

1DAB01

1DF0100A01

BOE

WBS No:

Activity ID:

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Criticality Accident Alarm System:

This LCO surveillance is performed by RCTs and Radiological Engineering in order to ensure that a criticality alarm system (utilizing detectors and coincidence circuitry in the criticality alarm system main panel) for criticality accident detection has been installed and is operable in all areas where fissile materials are handled, stored, or processed. A monthly surveillance is performed, where each detector is tested with a source to verify that it is within an acceptable range for the specific test source. These monthly surveillances are performed on off-shifts to minimize the impact to daily facility operation (overtime).

Resources

s	Cost Element	Skill	Department	Curve	Ouantity Units
	751 OVERTIME BASE & PRE.	M010 FOREMEN / TEAM LEADS / GROUP	K399S Building 776 Project	Linear	34.68 Hours
	Factors 4 hours per Surveillance (From	rom walk- 12 Monthly Surveillances	2 ARCIE Supervisor	0.3612 82/227 Davs	Remaining
	751 OVERTIME BASE & PRE.	M010 FOREMEN / TEAM LEADS / GROUP	K399S Building 776 Project	Linear	17.34 Hours
	Factors 4 Hours per Surveillance (Fro	rom walk- 1 RCT Supervisor	12 Monthly Surveillances	0.3612 82/227 Davs	Remaining
	751 OVERTIME BASE & PRE.	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	173.38 Hours
	Factors 4 Hours per Surveillance (Fro	rom walk- 10 RCTs	12 Monthly Surveillances	0.3612 82/227 Davs	Remaining
	751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	52.01 Hours
	Factors 4 hours per monthly Surveillar	lance event 3 Process Specialist	12 months	0.3612 82/227 Davs	Remaining
	751 OVERTIME BASE & PRE.	T070 MAINT, TECHS, (INSTRUMENT TEC	KD10H 776 Complex Steelworkers	Linear	156.04 Hours
	Factors 9 Hours per surveillance (From	rom walk- 4 ARCIE Technologists (alarm	n techs) 12 Monthly Surveillances	0.3612 82/227 Days	Remaining

Line Item A06 - Fire Detection/Fire Suppression

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Fire Detection/Fire Suppression:

This LCO surveillance ensures the operability of the Fire Detection System and the Fire Suppression System. A visual inspection of the fire detection system is performed on a monthly basis. A quarterly surveillance includes local audible alarms, panel operation, alarm test to the Central Alarm Station, and vault heat detection system and plenum heat detectors. Also included is Glovebox overheat testing.

Resources

es	Cost Element Skill		Skill		Department	Curve	Quantity Units	
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	21.67 Hours
_	Factors	5 Hours per week		12 GB O/H Tests per year		1 RCT	0.3612 82/227 Days	Remaining
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	43.34 Hours
_	Factors	5 Hours per Test		12 GB O/H Tests per year		2 Process Specialist	0.3612 82/227 Days	Remaining
	A5H	SUBCONTRACTED SRVS	E120	SAFETY ENGINEERS	K263S	Fire Tactical Operations	Linear	49,123.20 Dollars
		4 () 0 0		400000 1 11 1		4 1 " 1 DEC 004.00		

Factors 1 refer to letter Brad Smeaton to Mike 136000 dollars lump sum 1 Letter number BES-081-98

0.3612 82/227 Days Remaining

Line Item A07 - Criticality Safety Operations

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Criticality Safety Operations:

Criticality Safety Inspections are required monthly for JH98/NSP-10; quarterly per 5B02 and annually.

s		Cost Element			Skill			Department	Curve	Ouantity Units
Į	750	STRAIGHT TIME BASE	T060	D&D F	HAZ REDUC TECH / RISK RED	KD10H	776 Com	nplex Steelworkers	Linear	156.04 Hours
r	Factors	1 Process Specialists		12	Monthly Surveillances	,	36	hours per Surveillance (JH98/NSP-	0.3612 82/227 Davs	Remaining
L	750	STRAIGHT TIME BASE	T060	D&D F	AZ REDUC TECH / RISK RED	KD10H	776 Com	nplex Steelworkers	Linear	78.02 Hours
r	Factors	2 Process Specialists		4	Quarterly Surveillances	,	27	Hours per quarterly surveillance	0.3612 82/227 Davs	Remaining
L	750	STRAIGHT TIME BASE	T060	D&D F	AZ REDUC TECH / RISK RED	KD10H	776 Com	nplex Steelworkers	Linear	14.45 Hours
r	Factors	40 hours per annual surveillan	ce	1	Process Specialist	,	0.3612	82/227 Davs Remaining		
L	A5H	SUBCONTRACTED SRVS	0000	NONE		K399S	Buildina	776 Proiect	Linear	6.140.40 Dollars
	Factors	5 Inspectors		40	Hours		85	\$/Hour	0.3612 82/227 Days	Remaining

WBS No: 1DAB01 Activity ID: 1DF0100A01

Rocky Flats Closure Project **Baseline Cost and Basis of Estimate**

Baseline Devl Proiect WBS Filter Activity Filter

1DAB

Starts In FY

Line Item A08 - OSR Compensatory Measures

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O.

Item Desc - OSR Compensatory Measures:

Compensatory measures are invoked in response to Limited Conditions of Operations out-of-tolerance conditions or violation of Operational Safety Requirements (OSR) in the building, and have historically been fire watches for such conditions as out-of-compliance HSP31.11 Material or Heat Detector Deficiencies. The scope is for off-shift fire watch.

Assume 8 days out of the remaining portion of the year will require 24-hour roving fire watches in FY-00 under OSR Compensatory Measures.

Resource

ces		Cost Element	Skill			Department	Curve	Ouantity	Units
	751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	192.00	Hours

Factors 4 D&D Workers hours per day for roving fire watch

Line Item A09 - LCO Coordinator

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - LCO Coordinator:

The LCO Coordinator performs tracking and trending of LCO, ACs and Unreviewed Safety Questions (USQ) surveillance data; produces notification letters to organizations responsible for performing LCO surveillances; advises such organizations of due/past due surveillances; and maintains LCO files and documentation. This individual also attends shift turnover meetings and plan of the day/week meetings as needed in support of the LCO program; maintains and updates Shift Managers manuals; and updates the Vital Safety Systems (VSS) Status Board.

Resources

es	Cost Element	Skill	Department	Curve	Quantity	Units
7	50 STRAIGHT TIME BASE	P170 OTHER ADMINISTRATIVE & PROFE	R100S RMRS Salaried	Linear	338.08	Hours

Factors 4 Hours per day Morgan 0.3612 82/227 Days Remaining

Line Item A10 - Routine Radiological Surveys

ROF

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Routine Radiological Surveys:

Routine Radiological Surveys (i.e., pre-job, weekly, monthly, quarterly, semi-annual, etc.) are performed per the Site radiological Control Manual in order to ensure the safety of personnel, the facility, and the environment. The surveys include gamma-neutron, contamination control, baseline and ALARA exposure, glovebox, and/or room surveys.

Resources

s		Cost Element		Sk	ill			Department	Curve	Quantity	Units
L	750	STRAIGHT TIME BASE	T050	RADIATION C	ONTROL TECHNOLIGI	KD10H	776 Cor	nplex Steelworkers	Linear	939.12	Hours
I	actors	2 Hours per survey (From wa	lk-down)		eklv Survevs		52	Weeks per vear	 0.3612 82/227 D	avs Remaining	
L	750	STRAIGHT TIME BASE	T050	RADIATION C	ONTROL TECHNOLIGI	KD10H	776 Cor	nplex Steelworkers	Linear	329.41	Hours
I	actors	2 Hours per Survey (From wa	lk-down)	12Mo	nths	ı	38	Monthly Surveys	 0.3612 82/227 D	avs Remaining	
L	750	STRAIGHT TIME BASE	T050	RADIATION C	ONTROL TECHNOLIGI	KD10H	776 Cor	nplex Steelworkers	Linear	332.30	Hours
I	actors	2 Survey events per year		2.5 Ho	urs per survev (From wal	k-down)	184	Glovebox Survevs	 0.3612 82/227 D	avs Remaining	
	750	STRAIGHT TIME BASE	T050	RADIATION C	ONTROL TECHNOLIGI	KD10H	776 Cor	nplex Steelworkers	Linear	10.84	Hours
I	actors	2 Survevs per Year		3 Ho	urs per set Survev (From	walk-	5	Tank Sets	 0.3612 82/227 D	avs Remaining	
	750	STRAIGHT TIME BASE	T050	RADIATION C	ONTROL TECHNOLIGI	KD10H	776 Cor	nplex Steelworkers	Linear	13.00	Hours
I	actors	2 Source Inventories and Lea	k Testino	1 RC	Ts		18	Hours per Survev	0.3612 82/227 D	avs Remaining	
L	751	OVERTIME BASE & PRE.	T050	RADIATION C	ONTROL TECHNOLIGI	KD10H	776 Cor	nplex Steelworkers	Linear	164.63	Hours

Factors 0.1 10% Overtime RCT hours ST for Routine 0.3612 82/227 Days Remaining Description: B776/777 Compliance Surveillance - Environmental

Activity ID: 1DF0	Description: B776/777 Compliance Surve		Cost Risk	2 Schedule F	Risk 3						
Line Item	Description	Quantity Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
			Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
E01	RCRA Inspections	1.00 ea	HC	687	687	16.378	0	0	16.378	7.993	24.371
E02	Organic Air Emission Surveillance	ance 1.00 each			39	798	0	0	798	389	1.188
Total for Activity 1DF0100E01:					726	17.177	0	0	17,177	8.382	25.559

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WBS No: 1DAB01 Activity ID: 1DF0100E01

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect Baseline Devl WBS Filter 1DAB Activity Filter *

Cost Rick

2 Schodulo Risk

3

Starts In FY

Line Item E01 - RCRA Inspections

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - RCRA Inspections for B776/777 include daily inspections of tank systems including process waste tanks (Process Waste Tanks, Tank T1 and T2, SR3, SR4, and SR5, T344, T345, T360, T370 and the FBI Pilot Tanks); Monthly and Annual organic inspection of vacuum accumulators; and weekly inspections of 776.1 and 777.1 Units; WEMS Management support, container management and regulatory interface and support from the WEMS Coordinator.

Resources

s		Cost Element	Skill			Department			Cur	ve	Ouantity	Units
	750	STRAIGHT TIME BASE	T060	T060 D&D HAZ REDUC TECH / RISK RED		KD10H				ar	253.56	
	Factors	1 Process Specialist		234	AWS Daily Inspections for T	anks	3	hours per dav (From walk-down)	0.3612	82/227 Davs	remaining	
	750	STRAIGHT TIME BASE	T060	D&D HAZ R	REDUC TECH / RISK RED	KD10H	776 C	omplex Steelworkers	Line	ar	18.78	Hours
ı	Factors	1 Hour per week to inspect th	<u>e 90 dav</u>	<u>, 1</u>	Process Specialist		52	weeks	0.3612	82/227 Davs	remaining	
	750	STRAIGHT TIME BASE	T060	D&D HAZ R	REDUC TECH / RISK RED	KD10H	776 C	omplex Steelworkers	Line	ar	225.39	Hours
ı	Factors	12 hours per inspection		52 v	weeks		_1	Perform weekly inspections	0.3612	82/227 Davs	remaining	
	751	OVERTIME BASE & PRE.	T060	D&D HAZ R	REDUC TECH / RISK RED	KD10H	776 C	omplex Steelworkers	Line	ar	189.27	Hours
	Factors	1 Process Specialist		131	AWS Fridays and weekends	:	4	Hours per day (From walk-down)	0.3612	82/227 Davs	remaining	

Line Item E02 - Organic Air Emission Surveillance

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Organic Air Emission Surveillance

Resources

ces		Cost Element	Skill	Department	Curve	Ouantity Units
	750	STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	39.01 Hours
	-	4 0 ''' // // //	a 11	40 M (4 5 0	

Factors 1 Surveillance/Month 9 Hours 12 Months 1 Process Specialist 0.3612 82/227 Days remaining

Activity ID: 1DE0100M01 Description: B776/777 Compliance Surve

Activity ID. IDI	Description. Bit of the Only Indiana Control C													
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost		
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost				
M01	Fire Inspections	1.00	ea	HC	129	129	3.707	0	0	3.707	1.809	5.515		
M02	SAAM/CAM Surveillance	1.00	ea	HC	465	465	10.173	0	0	10.173	4.964	15.137		
M03	Hood Encl./Portable Down Draft Face Velocity Surv.	1.00	ea	HC	107	107	2.337	0	0	2.337	1.140	3.477		
M04	Airhead Survevs/Change Filter Media	1.00	ea	HC	540	540	11.878	0	0	11.878	5.797	17.675		
M05	Annual Smoke Test	1.00	ea	HC	120	120	4.037	0	0	4.037	1.970	6.007		
M06	Evewash/Safetv Shower	1.00	ea	HC	33	33	665	0	0	665	325	990		
M07	Safetv/Inspections	1.00	ea	HC	0	0	0	13.682	0	13.682	0	13.682		
M10	NDA Gamma Scans	2.00	ea	HC	105	211	4.685	0	0	4.685	2.286	6.971		
		Total for Activ	ity 1DF0100)M01:		1.604	37.481	13.682	0	51.164	18.291	69.455		

Line Item M01 - Fire Inspections

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity consists of Fire Inspections of the Flammable Cabinets (14), Fire Extinguisher Inspections (164), Fire Barriers, Egress Routes, Soft-sided Containments, monthly Building combustible loading inspections per PRO-035-CC-776/777, and glovebox combustible loading inspections per Ops Order 776/777-361.

s		C	Cost Element			Skill			Department	C	urve	Quantity	Units
	750	STRAIGH	T TIME BASE	E130	OTHER	ENGINEERS	K399S	Buildina	776 Proiect	Liı	near	78.02	Hours
	Factors	1	Engineer		. 12	monthly inspections		18	hours per month combustible loading	0.3612	82/227 Davs	remaining	
	750	STRAIGH	T TIME BASE	T060	D&D HA	Z REDUC TECH / RISK RED	KD10H	776 Com	nolex Steelworkers	Lit	near	15.17	Hours
	Factors	0.25	hours per cabinet for month	lv	12	months		14	Flammable Cabinets	0.3612	82/227 Davs	remaining	
	750	STRAIGH	T TIME BASE	T060	D&D HA	Z REDUC TECH / RISK RED	KD10H	776 Com	nplex Steelworkers	Liı	near	35.54	Hours
	Factors	0.05	hours per monthly Inspection	n per	12	months		164	Fire Extinguishers	0.3612	82/227 Days	remaining	

WBS No: 1DAB01 Activity ID: 1DF0100M01

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect Ba
WBS Filter 1D
Activity Filter *

Baseline Devl

Starts In FY *

Line Item M02 - SAAM/CAM Surveillance

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity consists of the LCO Surveillance required to verify the rooms listed in the OSR are covered by an operable Selective Alpha Air Monitor (SAAM) system. This system is used to detect the presence of airborne radioactivity above the alarm point setting of the instrument and to activate an alarm to warn personnel in the area to minimize personnel exposure. A twice-weekly surveillance is performed to visually check operating area SAAMs and recirculation air plenum SAAMs for proper settings and air flow of >.8 cubic feet per minute (cfm) and <3 cfm. Also visually check the operating effluent SAAM for proper SAAM settings and airflow of <2 cfm and <3cfm. Per ROI 4.05, Rev. 1.

RCTs surveil 90 SAAM/CAAM units twice per week. During the surveillance, the filter papers are changed.

Resources

s		Cost Element				Skill			Department		Curve	Ouantity	Units
Į	750			T050	RADIA	TION CONTROL TECHNOLIGI	KD10H	776 Co	nplex Steelworkers		Linear	422	.60 Hours
	Factors	actors 0.125 hours per surveillance			2	Surveillances per week		52	weeks	90	SAAM/CAM I	Units	
-		0.3612	82/227 Davs remaining										
	751	OVERTIM	E BASE & PRE.	T050	RADIA	TION CONTROL TECHNOLIGI	KD10H	776 Co	nplex Steelworkers		Linear	42	.26 Hours
	Factors	0.1	10% overtime per week (ha	sed on	1	RCT		1170	hours straight time CAM/SAAM	0.3613	82/227 Days	remaining	

Line Item M03 - Hood Encl./Portable Down Draft Face Velocity Surv.

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity consists of the LCO Surveillance of the minimum face velocity on Zone 1A enclosures (gloveboxes, hoods and downdraft tables). A monthly surveillance is performed by Radiologica Control Technicians (RCTs) to either verify the enclosure minimum average face velocity >150 fpm or document that any loose surface alpha contamination is <200 dpm/100 cm2 in each Zone 1A enclosure. Operability of Zones 1 1A, and II ventilation systems is needed to maintain negative pressure and to mitigate the release of radioactive materials to the environment. Process Specialists open and close hoods and b-boxes for the RCTs.

Resources

es		Cost Element		Skill			Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNO	LIGI KD10H	776 Co	mplex Steelworkers	Linear	32.51	Hours
c	Factors	0.5 hours per hood surveillance	(From	12 months		15	hood surveillances per month	0.3612 82/227 Days	remaining	
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNO	LIGI KD10H	776 Co	mplex Steelworkers	Linear	32.51	Hours
r	Factors	0.5 hours per survey (From wa	k-down)	12 months		15	Portable Downdraft Surveillances pe	r 0.3612 82/227 Davs	remaining	
L	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK F	ED KD10F	776 Co	mplex Steelworkers	Linear	32.51	Hours
r	Factors	0.5 hours per hood to survey (F	rom wal	lk- 12 months		15	monthly hood surveillances	0.3612 82/227 Davs	remaining	
L	751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNO	LIGI KD10H	1 776 Co	mplex Steelworkers	Linear	6.50	Hours
Iff	Factors	0.1 10% overtime	1	1 RCT		180	hours per vear hood/enclosure	0.3612 82/227 Davs	remaining	
L	751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK F	ED KD10F	1 776 Co	mplex Steelworkers	Linear	3.25	Hours
	Factors	0.1 10% overtime		90 ST hours process spec	ialist	0.3612	82/227 Days remaining			

Line Item M04 - Airhead Surveys/Change Filter Media

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Inspect and maintain the permanently installed air monitoring system. RCTs perform airhead surveillances.

es		Cost Element		Skill			Department		Curve	Ouantity Units
Į	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TE	ECHNOLIGI KD10H	776 Con	nplex Steelworkers	L	inear	50.06 Hours
	Factors	0.07 hours per unit calibration per	er month	12 months		165	Airhead Units requiring calibration	0.3612	82/227 Davs rem	naining
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TE	CHNOLIGI KD10H	776 Con	nplex Steelworkers	L	inear	435.75 Hours
	Factors	0.08 hours per unit to change (F	rom walk	c- 2 changes per we	eek	52	weeks	145	Filter Media Unit	S
r		0.3612 82/227 Davs remaining								
Ĺ	751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TE	ECHNOLIGI KD10H	776 Con	nplex Steelworkers	L	inear	48.58 Hours
r	Factors	0.1 10% overtime		1345 ST hours RCT s	support airhead	0.3612	82/227 Davs remaining			
Ĺ	751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH /	RISK RED KD10H	776 Con	nplex Steelworkers	L	inear	5.63 Hours
	Factors	0.1 10% overtime		156 hours process s	specialist ST filter	0.3612	82/227 Days remaining			

WBS No: 1DAB01 1DF0100M01 Activity ID:

Rocky Flats Closure Project **Baseline Cost and Basis of Estimate**

Proiect WBS Filter Activity Filter

Baseline Devl 1DAB

Starts In FY

Line Item M05 - Annual Smoke Test

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O.

Item Desc - This activity consists of RCTs performing tri-annual (required in FY-00) air flow pattern testing on 90 SAAM/CAM units annually. During this surveillance, special air flow conditions may need to be established (ie. roll-up doors open and/or shut, ventilation systems at reduced flows, etc.) and tested. These tests are performed off-shift to minimize impacts to facility operations.

Resource

ces		Cost Element		Skill		Department	Curve	Quantity	Units
	751	OVERTIME BASE & PRE.	M010	FOREMEN / TEAM LEADS / GROUP	K399S	Building 776 Project	Linear	40.00	Hours
	Factors	40 Hours Foreman time to sup	ervise	_ 1 Foreman					
	751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	80.00	Hours
	Factors	40 hours RCT time to inspect	olacemer	t 2 RCTs					

Factors 40 hours RCT time to inspect placement 2

Line Item M06 - Eyewash/Safety Shower

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Safety Showers and Eyewash Surveillances ensure that DOE, ANZI, and other requirements are met. Safety Showers and Eyewash Stations are flow tested monthly. A checklist is completed and submitted to the Building Manager for approval. Appropriate documentation is kept on file.

Resource

ırces		Cost Element		Skill Department Curve D&D HAZ REDUIC TECH / RISK RED. KD10H. 776 Complex Steelworkers Linear		Curve	Ouantity	Units	
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	32.51	Hours
			-						

0.25 hours to inspect per month (From Eve wash stations 0.3612 82/227 Days remaining Factors

Line Item M07 - Safety/Inspections

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Safety/Housekeeping Inspections consist of various activities that protect building personnel.

Resources

es		Cost Element				Skill			Department	Curve	Ouantity	Units
	A5H	SUBCO	NTRACTED SRVS	E020	CIVIL EN	IGINEERS	K399S	Building '	776 Project	Linear	13,682.26	Dollars
	Factors	1	Lump Sum		37880	Dollars		0.3612	82/227 Days remaining			

37880 Dollars

0.3612 82/227 Days remaining

Line Item M10 - NDA Gamma Scans

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O

Item Desc - NDA Gamma Scans are required to determine the Pu gram quantity in fissile solution tanks (2 each).

Resources

es			Cost Element			Skill			Department	Curve	<i>Ouantity</i>	Units
	750	STRAIGH	IT TIME BASE	T070	MAINT	. TECHS. (INSTRUMENT TEC	KD10H	776 C	omplex Steelworkers	Linear	14.45 H	ours
	Factors	1	Annual test	•	5	Tanks requiring NDA Scans		8	hours per NDA Scan	 0.3612 82/227 Da	vs remaining	
	750	STRAIGH	IT TIME BASE	T070	MAINT	. TECHS. (INSTRUMENT TEC	KD10H	776 C	omplex Steelworkers	Linear	91.02 H	ours
	Factors	18	Hours per Scan		7	Plenums		2	NDA Testing Techs	0.3612 82/227 Da	vs remaining	

Activity ID: 1DE0101A00 2 Cahadula Piels Description: B776/777 Compliance Surveillance - Authorization Cost Diele

ACTIVITY ID. IDI	Description. Birofill Compilative Survey	silialice - Au	illionzalion					Cost Risk	Z Schedule I	tisk 5		
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
A02	Inert Atmosphere - Oxvoen Analyzer	1.00	ea	HC	172	172	3.709	0	0	3.709	1.769	5.478
A04	Emergency Power/UPS	1.00	ea	HC	232	232	5.812	0	0	5.812	2.772	8.584
A05	Criticality Accident Alarm System	1.00	ea	HC	1.200	1.200	40.977	0	0	40.977	19.546	60.522
A06	Fire Detection/Fire Suppression	1.00	ea	HC	180	180	3.700	136.000	0	139.700	1.765	141.465
A07	Criticality Safety Operations	1.00	ea	HC	688	688	14.076	17.000	0	31.076	6.714	37.791
A08	OSR Compensatory Measures	1.00	ea	HC	3.264	3.264	106.831	0	0	106.831	50.958	157.789
A09	LCO Coordinator	1.00	ea	HC	936	936	24.551	0	0	24.551	11.711	36.262
A10	Routine Radiological Surveys	1.00	ea	HC	4.954	4.954	108.471	0	0	108.471	51.740	160.211

Baseline Devl Proiect Rocky Flats Closure Project WBS Filter 1DAB

11.626

308.127

153.000

32.169

493.295

146.976

Activity ID: 1DF0101A00 **Baseline Cost and Basis of Estimate** Activity Filter Starts In FY 1.00 ea SYS Contingency And Escalation 32.169 32.169

Total for Activity 1DF0101A00:

Line Item A02 - Inert Atmosphere - Oxygen Analyzer

1DAB01

BOE

WBS No:

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Inert Atmosphere - Oxygen Analyzer:

This LCO surveillance monitors Zone 1 inert systems and designated enclosures for fire safety involving pyrophoric plutonium. SOEs and Maintenance personnel ensure that gloveboxes that require an inert atmosphere and are used to handle in-process pyrophoric plutonium are monitored by an operable oxygen analyzer. A monthly surveillance is performed to readjust the oxygen analyzers to manufacturer's specification and to test the alarm at the 5% by volume limit.

Resources

es		Cost Element				Skill			Department		Curve	Quantity	Units
Į	750			C020	ELECTR	RICIANS	KD10H	776 Co	nplex Steelworkers		Linear	147.84	Hours
	Factors			om walk-	2	Electricians		14	Oxygen Analyzers	4	Quarterly Su	rveillances	
		1.1	10% surveillance following	failure									
	750	STRAIGH	T TIME BASE	T050	RADIATI	ION CONTROL TECHNOLIGI	KD10H	776 Co	nplex Steelworkers		Linear	24.64	Hours
	Factors	0.4	Hours per unit to perform s	urveilland	e 1	RCT		14	Oxygen Analyzer Units	4	guarterly sur	veillances	

10% surveillance following failure 1.1

Line Item A04 - Emergency Power/UPS BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Emergency Power/UPS:

This activity consists of the LCO surveillance requiring the emergency generator to be tested on a monthly basis for a minimum of one hour. The diesel generators shall be tested for automatic startup and pickup of loads required for the condition of loss of offsite electrical power. Process Specialists support vault/alarm access while the Alarm Tech resets five (5) panels. This scope is perfomed during off-shift so that facility operations do not need to be suspended for the Emergency Power testing.

Resources

es		Cost Element		Skill			Department	Curve	Quantity Units
	750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Cc	emplex Steelworkers	Linear	32.00 Hours
į.	Factors	2 Electricians		4 hours per inspectio	n	4	quarterly inspections		
	750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Cc	emplex Steelworkers	Linear	72.00 Hours
نے	Factors	2 Electricians		3 hours each per mo	nth for UPS	12	monthly inspections		
	750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Cc	mplex Steelworkers	Linear	48.00 Hours
نے	Factors	2 Electricians		2 hours per month for	r batterv	12	monthly inspections		
	750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Cc	mplex Steelworkers	Linear	16.00 Hours
نے	Factors	1 annual inspection		2 Electricians		8	hours for annual battery inspection		
L	751	OVERTIME BASE & PRE.	C020	ELECTRICIANS	KD10H	776 Cc	mplex Steelworkers	Linear	32.00 Hours
نے ۔	Factors	2 Electricians		4 Hours per Inspection	on (From walk-	4	Quarterly Inspections		
L	751	OVERTIME BASE & PRE.	C100	AUTO MECHANIC	KD10H	776 Cc	mplex Steelworkers	Linear	16.00 Hours
نے ۔	Factors	1 Mechanic		4 Hours per Inspection	on (Monitor Diesel	4	Quarterly Inspections		
L	751	OVERTIME BASE & PRE.	T070	MAINT, TECHS, (INSTRUMEN	NT TEC KD10H	776 Cc	mplex Steelworkers	Linear	16.00 Hours
	Factors	 Alarm Technician 		4 Hours per Inspection	on (From walk-	4	Quarterly Inspections		

Line Item A05 - Criticality Accident Alarm System

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O

Item Desc - Criticality Accident Alarm System:

This LCO surveillance is performed by RCTs and Radiological Engineering in order to ensure that a criticality alarm system (utilizing detectors and coincidence circuitry in the criticality alarm system main panel) for criticality accident detection has been installed and is operable in all areas where fissile materials are handled, stored, or processed. A monthly surveillance is performed, where each detector is tested with a source to verify that it is within an acceptable range for the specific test source. These monthly surveillances are performed on off-shifts to minimize the impact to daily facility operation (overtime).

Resources	Cost Element	Skill	Department	Curve	Ouantity	Units	
	•	•	•				

32.169

640.272

WBS No: 1DAB01 Rockv Flats Closure Project Project Baseline Devl
Activity ID: 1DF0101A00 Baseline Cost and Basis of Estimate

		Bassiiiis Goot air	u <u> </u>	OO	Activity Filter	*	Starts In FY *
751 OVERTIME BASE & PRE.	M010 FOREMEN /	TEAM LEADS / GROUP	K399S	Buildina ¹	776 Proiect	Linear	96.00 Hours
Factors 4 hours per Surveillance (From	m walk- 12 M	lonthly Surveillances		2	ARCIE Supervisor		
751 OVERTIME BASE & PRE.	M010 FOREMEN/	TEAM LEADS / GROUP	K399S	Buildina	776 Proiect	Linear	48.00 Hours
Factors 4 Hours per Surveillance (Fro	m walk- 1 R	CT Supervisor		12	Monthly Surveillances		
751 OVERTIME BASE & PRE.	T050 RADIATION (CONTROL TECHNOLIGI	KD10H	776 Com	plex Steelworkers	Linear	480.00 Hours
Factors 4 Hours per Surveillance (Fro	m walk- 10 R	CTs		12	Monthly Surveillances		
751 OVERTIME BASE & PRE.	T060 D&D HAZ RE	DUC TECH / RISK RED	KD10H	776 Com	plex Steelworkers	Linear	144.00 Hours
Factors 4 hours per monthly Surveillar	nce event 3 Pi	rocess Specialist		12	months		
751 OVERTIME BASE & PRE.	T070 MAINT, TECH	HS. (INSTRUMENT TEC	KD10H	776 Com	plex Steelworkers	Linear	432.00 Hours
П . О Петин и и и и и и и и и и и и и и и и и и	· · · - II · · · · · · · · · · · · ·	DOID To also also also /- la mas	4	40	Mandali Comunitari		

Factors 9 Hours per surveillance (From walk- 4 ARCIE Technologists (alarm techs) 12 Monthly Surveillances

Line Item A06 - Fire Detection/Fire Suppression

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Fire Detection/Fire Suppression:

This LCO surveillance ensures the operability of the Fire Detection System and the Fire Suppression System. A visual inspection of the fire detection system is performed on a monthly basis. A quarterly surveillance includes local audible alarms, panel operation, alarm test to the Central Alarm Station, and vault heat detection system and plenum heat detectors. Also included is Glovebox overheat testing.

Resources

es	Cost Element	Skill	Department	Curve	Quantity Units
	750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TE	ECHNOLIGI KD10H 776 Complex Steelworkers	Linear	60.00 Hours
_	Factors 5 Hours per week	12 GB O/H Tests p	per vear 1 RCT		
	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH /	RISK RED KD10H 776 Complex Steelworkers	Linear	120.00 Hours
_	Factors 5 Hours per Test	12 GB O/H Tests	per vear 2 Process Specialist		
Į	A5H SUBCONTRACTED SRVS	E120 SAFETY ENGINEERS	K263S Fire Tactical Operations	Linear	136.000.00 Dollars

Factors 1 refer to letter Brad Smeaton to Mike 136000 dollars lump sum 1 Letter number BES-081-98

Line Item A07 - Criticality Safety Operations

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Criticality Safety Operations:

Criticality Safety Inspections are required monthly for JH98/NSP-10; quarterly per 5B02 and annually.

Resources

5	Cost Element		Skill			Department			Curve	Quantity	Units
	750	STRAIGHT TIME BASE	T060	D&D HAZ RI	EDUC TECH / RISK RED	KD10H	776 Co	mplex Steelworkers	Linear	432.00	Hours
	Factors	1 Process Specialists		12N	Monthly Surveillances		36	hours per Surveillance (JH98/NSP-			
	750	STRAIGHT TIME BASE	T060	D&D HAZ RI	EDUC TECH / RISK RED	KD10H	776 Co	mplex Steelworkers	Linear	216.00	Hours
	Factors	2 Process Specialists		. 4	Quarterly Surveillances		27	Hours per quarterly surveillance			
	750	STRAIGHT TIME BASE	T060	D&D HAZ RI	EDUC TECH / RISK RED	KD10H	776 Co	mplex Steelworkers	Linear	40.00	Hours
	Factors	40 hours per annual surveillan	ce	<u>, 1 F</u>	Process Specialist						
	A5H	SUBCONTRACTED SRVS	0000	NONE		K399S	Building	r 776 Proiect	Linear	17.000.00	Dollars
	Factors	5 Inspectors		40 H	Hours		85	\$/Hour			

Line Item A08 - OSR Compensatory Measures

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - OSR Compensatory Measures:

Compensatory measures are invoked in response to Limited Conditions of Operations out-of-tolerance conditions or violation of Operational Safety Requirements (OSR) in the building, and have historically been fire watches for such conditions as out-of-compliance HSP31.11 Material or Heat Detector Deficiencies. The scope is for off-shift fire watch.

Assume 34 days of the year will require 24-hour roving fire watches in FY-99 under OSR Compensatory Measures.

Resources Cost Element Skill Department Curve Quantity Units

WBS No: 1DAB01 Rocky Flats Closure Project Project Activity ID: 1DF0101A00 Baseline Cost and Basis of Estimate

Proiect Baseline Devl WBS Filter 1DAB

 Activity Filter
 *
 Starts In FY
 *

 Linear
 3,264.00 Hours

Factors 4 Process Specialists 24 hours per month for roving fire watch 34 days per year under OSR

days

Line Item A09 - LCO Coordinator

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

T060 D&D HAZ REDUC TECH / RISK RED | KD10H | 776 Complex Steelworkers

Item Desc - LCO Coordinator:

751 OVERTIME BASE & PRE.

The LCO Coordinator performs tracking and trending of LCO, ACs and Unreviewed Safety Questions (USQ) surveillance data; produces notification letters to organizations responsible for performing LCO surveillances; advises such organizations of due/past due surveillances; and maintains LCO files and documentation. This individual also attends shift turnover meetings and plan of the day/week meetings as needed in support of the LCO program; maintains and updates Shift Managers manuals; and updates the Vital Safety Systems (VSS) Status Board.

Resources

es		Cost Element		Skill		Department	Department Curve		
	750	STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	R100S	RMRS Salaried	Linear	936.00	Hours

Factors 4 Hours per day

Line Item A10 - Routine Radiological Surveys

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Routine Radiological Surveys:

Routine Radiological Surveys (i.e., pre-job, weekly, monthly, quarterly, semi-annual, etc.) are performed per the Site radiological Control Manual in order to ensure the safety of personnel, the facility, and the environment. The surveys include gamma-neutron, contamination control, baseline and ALARA exposure, glovebox, and/or room surveys.

Resources

Γ										
es .		Cost Element		Skill			Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNO	LIGI KD10F	776 Cd	omplex Steelworkers	Linear	2.600.00	Hours
r	Factors	2 Hours per survey (From wa	lk-down)	25 Weekly Surveys		52	Weeks per vear			
L	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNO	DLIGI KD10H	776 Cd	omplex Steelworkers	Linear	912.00	Hours
If	Factors	2 Hours per Survey (From wa	lk-down)) 12 Months		38	Monthly Surveys			
L	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNO	DLIGI KD10H	776 Cd	omplex Steelworkers	Linear	920.00	Hours
ř	Factors	2 Survey events per year		2.5 Hours per survey (Fro	m walk-down)	184	Glovebox Survevs		1	
L	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNO	DLIGI KD10F	776 Cd	omplex Steelworkers	Linear	30.00	Hours
If	Factors	2 Survevs per Year		3 Hours per set Survey	(From walk-	5	Tank Sets			
L	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNO	DLIGI KD10F	776 Cd	omplex Steelworkers	Linear	36.00	Hours
r	Factors	Source Inventories and Lea	k Testino	q 1 RCTs		18	Hours per Survev		1	
L	751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNO	DLIGI KD10F	776 Cd	omplex Steelworkers	Linear	455.80	Hours
	Part	0.1 100/ Overtime		AFFO DOT house OT for Dou	utim o					

Factors 0.1 10% Overtime 4558 RCT hours ST for Routine

Line Item SYS - Contingency And Escalation

BOE

Resources

es	Cost Element		Skill		Department	Curve	Quantity	Units
CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	19.381.71	Dollars
Factors	19381.7 Dollars							
FSC	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	12.787.05	Dollars

Factors 12787.1 Dollars

Activity ID: 1DF0101E00 Description: B776/777 Compliance Surveillance - Environment

ACTIVITY ID: TDF	Description: B116/111 Compliance Surve	ivironmeniai		COSI RISK 2 Schedule RISK 3								
Line Item	Line Item Description Quantity Units BOE Labor							Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
E01	01 RCRA Inspections 1.00 ea HC 1.902							0	0	45.344	21.629	66.974
E02	Organic Air Emission Surveillance	1.00	each	HC	108	108	2.210	0	0	2.210	1.054	3.264
SYS	Contingency And Escalation							0	3.716	3.716	0	3.716
	To		2.010	47.554	0	3.716	51.270	22.683	73.953			

Line Item E01 - RCRA Inspections

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Cost Diele

2 Sahadula Piels

WBS No: 1DAB01 Activity ID: 1DF0101E00

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter Activity Filter Baseline Devl 1DAB

Starts In FY

Document - Rev 0.

Item Desc - RCRA Inspections for B776/777 include daily inspections of tank systems including process waste tanks (Process Waste Tanks, Tank T1 and T2, SR3, SR4, and SR5, T344, T345, T360, T370 and the FBI Pilot Tanks); Monthly and Annual organic inspection of vacuum accumulators; and weekly inspections of 776.1 and 777.1 Units. The subcontracted support contains 776.1 and 777.1 RCRA Unit Inspections, WEMS Management support, container management and regulatory interface and support from the WEMS Coordinator.

Resources

es		Cost Element		Skill		Department			Curve	Quantity	Units
L	750	STRAIGHT TIME BASE	T060	D&D HAZ RED	OUC TECH / RISK RED	KD10H	776 Co	mplex Steelworkers	Linear	702.00 H	lours
ز	Factors	1 Process Specialist		234 AW	S Daily Inspections for T	anks	3	hours per day (From walk-down)			
L	750	STRAIGHT TIME BASE	T060	D&D HAZ RED	OUC TECH / RISK RED	KD10H	776 Co	mplex Steelworkers	Linear	52.00 H	lours
ز	actors	1 Hour per week to inspect th	e 90 dav	_1 Pro	cess Specialist		52	weeks			
	750	STRAIGHT TIME BASE	T060	D&D HAZ RED	OUC TECH / RISK RED	KD10H	776 Co	mplex Steelworkers	Linear	624.00 H	lours
ز	actors	12 hours per inspection		52wee	eks		1	Perform weekly inspections			
	751	OVERTIME BASE & PRE.	T060	D&D HAZ RED	OUC TECH / RISK RED	KD10H	776 Co	mplex Steelworkers	Linear	524.00 H	lours
	Factors	 Process Specialist 		131 AW	S Fridays and weekends	3	4	Hours per day (From walk-down)			

Line Item E02 - Organic Air Emission Surveillance

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Organic Air Emission Surveillance

Resources

es			Cost Element		Skill				Department	(Curve	Quantity	Units	
	750	STRAIG	HT TIME BASE	T060 D	&D HAZ REDU	C TECH / RISK RED	KD10H	776 Con	nplex Steelworkers	L	inear	108.00	Hours	
	Factors	1	Surveillance/Month		9 Hour	3		12	Months	1	Process Spe	cialist		

Factors 1 Surveillance/Month Line Item SYS - Contingency And Escalation

BOE

Resources

es	Cost Element	Skill			Department	Curve	Quantity	Units
С	CONTINGENCY 0000 NONE		NONE	ZDEPT	No Department	Linear	2.238.64	Dollars
Fac	tors 2238.64 Dollars							
E	SC ESCALATION	0000	NONE	ZDEPT	No Department	Linear	1.476.93	Dollars

1476.94 Dollars Factors

Activity ID:

IDFU	Description: B110/111 Compliance Surve	mance - Ot	ner					Cost Kisk	2 Scheaule K	isk 3
m	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime

D776/777 Compliance Curveillance Other

Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
M01	Fire Inspections	1.00	ea	HC	356	356	10.262	0	0	10.262	4.895	15.157
M02	SAAM/CAM Surveillance	1.00	ea	HC	1.287	1.287	28.163	0	0	28.163	13.434	41.597
M03	Hood Encl./Portable Down Draft Face Velocity Surv.	1.00	ea	HC	297	297	6.469	0	0	6.469	3.086	9.554
M04	Airhead Survevs/Change Filter Media	1.00	ea	HC	1.495	1.495	32.886	0	0	32.886	15.687	48.573
M05	Annual Smoke Test	1.00	ea	HC	572	572	19.017	0	0	19.017	9.071	28.088
M06	Evewash/Safetv Shower	1.00	ea	HC	90	90	1.841	0	0	1.841	878	2.720
M07	Safetv/Inspections	1.00	ea	HC	0	0	0	37.880	0	37.880	0	37.880
M10	NDA Gamma Scans	2.00	ea	HC	292	584	12.971	0	0	12.971	6.187	19.158
M11	DOP Filter Surveillance	1.00	ea	HC	540	540	11.822	0	0	11.822	5.639	17.461
SYS	Contingency And Escalation	1.00	ea	EE	0	0	0	0	11.648	11.648	0	11.648
	Tot	al for Activ	ity 1DF0101	/OO:		5.222	123.431	37.880	11.648	172.959	58.877	231.836

Line Item M01 - Fire Inspections

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity consists of Fire Inspections of the Flammable Cabinets (21 each), Fire Extinguisher Inspections (164) and monthly combustible loading inspections per PRO-035-FI-776/777.

Resources Cost Element Skill Department Curve **Ouantity** Units WBS No: 1DAB01 1DF0101M00 Activity ID:

Rocky Flats Closure Project **Baseline Cost and Basis of Estimate**

Baseline Devl Proiect WBS Filter 1DAB

Activity Filter Starts In FY 750 STRAIGHT TIME BASE E130 OTHER ENGINEERS R100S RMRS Salaried 216.00 Hours Linear Engineer monthly inspections hours per month combustible loading 750 STRAIGHT TIME BASE T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers 42.00 Hours Linear hours per cabinet for monthly Flammable Cabinets 750 STRAIGHT TIME BASE D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers Linear 98.40 Hours Fire Extinguishers Factors 0.05 hours per monthly Inspection per 12 months 164

Line Item M02 - SAAM/CAM Surveillance

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Dogument - Per 0

Item Desc - This activity consists of the LCO Surveillance required to verify the rooms listed in the OSR are covered by an operable Selective Alpha Air Monitor (SAAM) system. This system is used to detect the presence of airborne radioactivity above the alarm point setting of the instrument and to activate an alarm to warn personnel in the area to minimize personnel exposure. A twice-weekly surveillance is performed to visually check operating area SAAMs and recirculation air plenum SAAMs for proper settings and air flow of >.8 cubic feet per minute (cfm) and <3 cfm. Also visually check the operating effluent SAAM for proper SAAM settings and airflow of <2 cfm and <3cfm. Per ROI 4.05, Rev. 1.

RCTs surveilling 90 SAAM/CAAM units twice per week. During the surveillance, the filter papers are changed.

Resources

es			Cost Element			Skill			Department		Curve	Ouantity	Units
	750	STRAIGH	T TIME BASE	T050	RADIA	TION CONTROL TECHNOLIGI	KD10H	776 Con	nplex Steelworkers		Linear	1.170.00	Hours
	Factors	0.125	hours per surveillance		_ 2	Surveillances per week		52	weeks	90	SAAM/CAM	Jnits	
	751	OVERTIM	IE BASE & PRE.	T050	RADIA	TION CONTROL TECHNOLIGI	KD10H	776 Con	nplex Steelworkers		Linear	117.00	Hours
	Factors	0.1	10% overtime per week (b	ased on	1	RCT		1170	hours straight time CAM/SAAM				

0.1 10% overtime per week (based on RCT

Line Item M03 - Hood Encl./Portable Down Draft Face Velocity Surv.

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity consists of the LCO Surveillance of the minimum face velocity on Zone 1A enclosures (gloveboxes, hoods and downdraft tables). A monthly surveillance is performed by Radiologica Control Technicians (RCTs) to either verify the enclosure minimum average face velocity >150 fpm or document that any loose surface alpha contamination is <200 dpm/100 cm2 in each Zone 1A enclosure. Operability of Zones 1 1A, and II ventilation systems is needed to maintain negative pressure and to mitigate the release of radioactive materials to the environment. Process Specialists open and close hoods and b-boxes for the RCTs.

Resources

s	Cost Element	Skill	Department	Curve	Ouantity Units
	750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	90.00 Hours
	Factors 0.5 hours per hood surveillance	ce (From 12 months	15 hood surveillances per month		
	750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	90.00 Hours
	Factors 0.5 hours per survey (From wall	alk-down) 12 months	15 Portable Downdraft Surveillances of	per	
	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	90.00 Hours
	Factors 0.5 hours per hood to survey (F	(From walk- 12 months	15 monthly hood surveillances		
	751 OVERTIME BASE & PRE.	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	18.00 Hours
	Factors 0.1 10% overtime	1 RCT	180 hours per vear hood/enclosure		
	751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	9.00 Hours
	Factors 0.1 10% overtime	90 ST hours process specialist			

Line Item M04 - Airhead Surveys/Change Filter Media

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O

Item Desc - Inspect and maintain the permanently installed air monitoring system. RCTs perform airhead surveillances.

es	Cost Eler	nent		Skill				Department		Curve	Ouantity	Units
7	50 STRAIGHT TIME	BASE	T050	RADIATION CON	TROL TECHNOLIGI	KD10H	776 Com	plex Steelworkers		inear	138.60	Hours
Fac	tors 0.07 hours	per unit calibration per	month	12 month	ns		165	Airhead Units requiring calibration				
7	50 STRAIGHT TIME	BASE	T050	RADIATION CON	TROL TECHNOLIGI	KD10H	776 Com	plex Steelworkers	L	inear	1.206.40	Hours
Fac	tors 0.08 hours	per unit to change (Fro	om walk-	2 chanc	ies per week		52	weeks	145	Filter Media U	Jnits	

WBS No: 1DAB01 Baseline Devl Proiect Rocky Flats Closure Project Activity ID: 1DF0101M00 WBS Filter 1DAB **Baseline Cost and Basis of Estimate**

		Activity Filter *	Starts In FY *
751	OVERTIME BASE & PRE.	T050 RADIATION CONTROL TECHNOLIGI KD10H 776 Complex Steelworkers Linear	134.50 Hours
Factors	0.1 10% overtime	1345 ST hours RCT support airhead	
751	OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers Linear	15.60 Hours
Factors	0.1 10% overtime	156 hours process specialist ST filter	

Line Item M05 - Annual Smoke Test

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O

Item Desc - This activity consists of RCTs performing tri-annual (not required in FY-99 but is required in FY-00) air flow pattern testing on 90 SAAM/CAM units annually. During this surveillance, special air flow conditions may need to be established (ie. roll-up doors open and/or shut, ventilation systems at reduced flows, etc.) and tested. These tests are performed off-shift to minimize impacts to facility operations.

Resource

ces		Cost Element		Skill		Department	Curve	Ouantity	Units	
	751	OVERTIME BASE & PRE.	M010	FOREMEN / TEAM LEADS / GROUP	R100S	RMRS Salaried	Linear	16.00	Hours	
	Factors 16 Hours Foreman time to supervise									
	751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	556.00	Hours	

hours RCT time to inspect placement Factors 556

Line Item M06 - Eyewash/Safety Shower

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O

Item Desc - Safety Showers and Eyewash Surveillances ensure that DOE, ANZI, and other requirements are met. Safety Showers and Eyewash Stations are flow tested monthly. A checklist is completed and submitted to the Building Manager for approval. Appropriate documentation is kept on file.

Resource

rces		Cost Element		Skill		Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H 776 Co	mplex Steelworkers	Linear	90.00	Hours
	_								

Factors 0.25 hours to inspect per month (From months 30 Eve wash stations

Line Item M07 - Safety/Inspections

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O

Item Desc - Safety/Housekeeping Inspections consists of various activities that protect building personnel.

Resource

rces	Cost Element	Skill	Department	Curve	Ouantity	Units
	A5H SUBCONTRACTED SRVS	E020 CIVIL ENGINEERS	K399S Building 776 Project	Linear	37.880.00	Dollars

Lump Sum 37880 Dollars Factors 1

Line Item M10 - NDA Gamma Scans

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O

Item Desc - NDA Gamma Scans are required to determine the Pu gram quantity in fissile solution tanks (2 each).

Resources

BOE

es		Cost Element			Skill			Department	Curve	Ouantity Units
	750	STRAIGHT TIME BASE	T070	MAINT.	TECHS. (INSTRUMENT TEC	KD10H	776 Co	mplex Steelworkers	Linear	252.00 Hours
	Factors	18 Hours per Scan		7	Plenums		2	NDA Testing Techs		
	750	STRAIGHT TIME BASE	T070	MAINT	TECHS. (INSTRUMENT TEC	KD10H	776 Co	mplex Steelworkers	Linear	40.00 Hours
	Factors	1 Annual test		5	Tanks requiring NDA Scans		8	hours per NDA Scan		

Annual test Factors Line Item M11 - DOP Filter Surveillance

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - DOP Filter Surveillances are required to determine if plenum filters are operating as designed.

Resources	Cost Element	Skill	Department	Curve	Ouantity	Units	

WBS No: 1DAB01 Proiect **Rocky Flats Closure Project** Activity ID: 1DF0101M00 Resoling Cost and Resis of Estimate

Baseline Devl WBS Filter 1DAB

	Dascilile Oost 8	Activity Filt	er *	Starts In FY *
750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIG	KD10H 776 Complex Steelworkers	Linear	324.00 Hours
Factors 4 RCTs at each plenum	9 plenums	9 hours each plenum		
750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	162.00 Hours
Factors 2 HRTs at each plenum	9 plenums	9 hours each plenum		
751 OVERTIME BASE & PRE.	T050 RADIATION CONTROL TECHNOLIG	GI KD10H 776 Complex Steelworkers	Linear	36.00 Hours
Factors 4 RCTs at each plenum	1 Primary plenum	9 hours each plenum		
751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	18.00 Hours
Factors 2 HRTs at each plenum	1 Primary plenum	9 hours each plenum		

Line Item SYS - Contingency And Escalation

BOE

Resources

es		Cost Element		Skill		Department	Curve	Ouantity	Units		
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	7.017.91	Dollars		
	Factors 7017.91 Dollars										
	ESC	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	4.630.05	Dollars		

4630.05 Dollars

Description: P776/777 Compliance Surveillance Authorization

Cost Diele

2 Sahadula Piek

ACTIVITY ID: TOP	VID: 1DF010ZA00 Description: B776/777 Compliance - Authorization Cost Risk 2 Schedule Risk 3										
Line Item	Description	Quantity	Units BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
			Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
A02	Inert Atmosphere - Oxvaen Analyzer	1.00 ea	a HC	172	172	3.709	0	0	3.709	1.309	5.018
A04	Emergency Power/UPS	1.00 ea	a HC	232	232	5.812	0	0	5.812	2.051	7.863
A05	Criticality Accident Alarm System	1.00 ea	a HC	1.200	1.200	40.977	0	0	40.977	14.465	55.441
A06	Fire Detection/Fire Suppression	1.00 ea	a HC	180	180	3.700	136.000	0	139.700	1.306	141.006
A07	Criticality Safety Operations	1.00 ea	a HC	688	688	14.076	17.000	0	31.076	4.969	36.045
A08	OSR Compensatory Measures	1.00 ea	a HC	3.264	3.264	106.831	0	0	106.831	37.711	144.542
A09	LCO Coordinator	1.00 ea	a HC	936	936	24.551	0	0	24.551	8.667	33.218
A10	Routine Radiological Survevs	1.00 ea	a HC	4.954	4.954	108.471	0	0	108.471	38.290	146.761
SYS	Contingency And Escalation	1.00 ea	a EE	0	0	0	0	84.959	84.959	0	84.959
		Total for Activity	1DF0102A00:		11.626	308.127	153.000	84.959	546.086	108.769	654.854

Line Item A02 - Inert Atmosphere - Oxygen Analyzer

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Inert Atmosphere - Oxygen Analyzer:

This LCO surveillance monitors Zone 1 inert systems and designated enclosures for fire safety involving pyrophoric plutonium. SOEs and Maintenance personnel ensure that gloveboxes that require an inert atmosphere and are used to handle in-process pyrophoric plutonium are monitored by an operable oxygen analyzer. A monthly surveillance is performed to readjust the oxygen analyzers to manufacturer's specification and to test the alarm at the 5% by volume limit.

Resources

s		C	ost Element			Skill			Department		Curve	Quantity	Units
	750	STRAIGHT	TIME BASE	C020	ELECTRI	CIANS	KD10H	776 C	omplex Steelworkers		Linear	147.84	Hours
	Factors	1.2	Hours per Surveillance (Fro	om walk-	2	Electricians		14	Oxvaen Analyzers	4	Quarterly Su	rveillances	
-		1.1	10% surveillance following	failure									
	750	STRAIGHT	TIME BASE	T050	RADIATIO	ON CONTROL TECHNOLIGI	KD10H	776 C	omplex Steelworkers		Linear	24.64	Hours
	Factors	0.4	Hours per unit to perform s	urveilland	e 1	RCT		14	Oxygen Analyzer Units	4	quarterly sur	veillances	

1.1 10% surveillance following failure

Line Item A04 - Emergency Power/UPS BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Emergency Power/UPS:

This activity consists of the LCO surveillance requiring the emergency generator to be tested on a monthly basis for a minimum of one hour. The diesel generators shall be tested for automatic startup and pickup of loads required for the condition of loss of offsite electrical power. Process Specialists support vault/alarm access while the Alarm Tech resets five (5) panels. This scope is perfomed during off-shift so that facility operations do not need to be suspended for the Emergency Power testing.

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WBS No: 1DAB01 Activity ID: 1DF0102A00

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect Baseline Devl
WBS Filter 1DAB

-						Activity Filter	*	Starts In FY *
es		Cost Element		Skill		Department	Curve	Ouantity Units
Į	750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	32.00 Hours
-	Factors	2 Electricians		4 hours per inspection		4 quarterly inspections	-	
	750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	72.00 Hours
-	Factors	2 Electricians		3 hours each per month for l	JPS	12 monthly inspections		
	750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	48.00 Hours
-	Factors	2 Electricians		2 hours per month for batter	/	12 monthly inspections		
	750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	16.00 Hours
-	Factors	1 annual inspection		2 Electricians		8 hours for annual battery inspection	1	
L	751	OVERTIME BASE & PRE.	C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	32.00 Hours
	Factors	2 Electricians		4 Hours per Inspection (Fron	n walk-	4 Quarterly Inspections		
	751	OVERTIME BASE & PRE.	C100	AUTO MECHANIC	KD10H	776 Complex Steelworkers	Linear	16.00 Hours
-	Factors	1 Mechanic		4 Hours per Inspection (Mon	itor Diesel	4 Quarterly Inspections	-	
	751	OVERTIME BASE & PRE.	T070	MAINT, TECHS, (INSTRUMENT TEC	KD10H	776 Complex Steelworkers	Linear	16.00 Hours
	Factors	1 Alarm Technician		4 Hours per Inspection (Fron	n walk-	4 Quarterly Inspections		

Line Item A05 - Criticality Accident Alarm System

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Criticality Accident Alarm System:

This LCO surveillance is performed by RCTs and Radiological Engineering in order to ensure that a criticality alarm system (utilizing detectors and coincidence circuitry in the criticality alarm system main panel) for criticality accident detection has been installed and is operable in all areas where fissile materials are handled, stored, or processed. A monthly surveillance is performed, where each detector is tested with a source to verify that it is within an acceptable range for the specific test source. These monthly surveillances are performed on off-shifts to minimize the impact to daily facility operation (overtime).

Resources

s		Cost Element			Skill			Department	Curve	Quantity	Units
	751	OVERTIME BASE & PRE.	M010	FOREM	IEN / TEAM LEADS / GROUP	K399S	Buildina	776 Proiect	Linear	96.00	Hours
í	Factors	4 hours per Surveillance (Fro	m walk-	12	Monthly Surveillances		2	ARCIE Supervisor	T		
Į	751	OVERTIME BASE & PRE.	M010	FOREM	IEN / TEAM LEADS / GROUP	K399S	Buildina	776 Proiect	Linear	48.00	Hours
í	Factors	4 Hours per Surveillance (From the second	m walk-	_ 1	RCT Supervisor		12	Monthly Surveillances	T		
Į	751	OVERTIME BASE & PRE.	T050	RADIAT	TION CONTROL TECHNOLIGI	KD10H	776 Con	nplex Steelworkers	Linear	480.00	Hours
í	Factors	4 Hours per Surveillance (From the second	m walk-	_ 10	RCTs		12	Monthly Surveillances	T		
Į	751	OVERTIME BASE & PRE.	T060	D&D HA	AZ REDUC TECH / RISK RED	KD10H	776 Con	nplex Steelworkers	Linear	144.00	Hours
í	Factors	4 hours per monthly Surveilla	nce ever	t 3	Process Specialist		12	months	T		
Į	751	OVERTIME BASE & PRE.	T070	MAINT.	TECHS. (INSTRUMENT TEC	KD10H	776 Con	nplex Steelworkers	Linear	432.00	Hours
	Factors	9 Hours per surveillance (Fro	m walk-	4	ARCIE Technologists (alarm	techs)	12	Monthly Surveillances			

Line Item A06 - Fire Detection/Fire Suppression

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Fire Detection/Fire Suppression:

This LCO surveillance ensures the operability of the Fire Detection System and the Fire Suppression System. A visual inspection of the fire detection system is performed on a monthly basis. A quarterly surveillance includes local audible alarms, panel operation, alarm test to the Central Alarm Station, and vault heat detection system and plenum heat detectors. Also included is Glovebox overheat testing.

Resources

s		Cost Element		Skill		Department	Curve	Ouantity Units
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	60.00 Hours
1	actors	5 Hours per week		12 GB O/H Tests per vear		1 RCT		
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	120.00 Hours
1	actors	5 Hours per Test		12 GB O/H Tests per vear		2 Process Specialist		
L	A5H	SUBCONTRACTED SRVS	E120	SAFETY ENGINEERS	K263S	Fire Tactical Operations	Linear	136.000.00 Dollars

Factors 1 refer to letter Brad Smeaton to Mike 136000 dollars lump sum 1

Line Item A07 - Criticality Safety Operations

BOE Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item

Letter number BES-081-98

WBS No: 1DAB01 Activity ID: 1DF0102A00

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter

Baseline Devl r 1DAB

Activity Filter * Starts In FY *

level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Criticality Safety Operations:

Criticality Safety Inspections are required monthly for JH98/NSP-10; quarterly per 5B02 and annually.

Resources

es		Cost Element			Skill			Department	Curve	<i>Ouantity</i>	Units
	750	STRAIGHT TIME BASE	T060	D&D HAZ	REDUC TECH / RISK RED	KD10H	776 Co	mplex Steelworkers	Linear	432.00	Hours
i	Factors	1 Process Specialists		12	Monthly Surveillances		36	hours per Surveillance (JH98/NSP-			
	750	STRAIGHT TIME BASE	T060	D&D HAZ	REDUC TECH / RISK RED	KD10H	776 Co	mplex Steelworkers	Linear	216.00	Hours
	Factors	2 Process Specialists		4	Quarterly Surveillances		27	Hours per quarterly surveillance			
	750	STRAIGHT TIME BASE	T060	D&D HAZ	REDUC TECH / RISK RED	KD10H	776 Co	mplex Steelworkers	Linear	40.00	Hours
	Factors	40 hours per annual surveilland	e	. 1	Process Specialist						
	A5H	SUBCONTRACTED SRVS	0000	NONE		K399S	Building	z 776 Proiect	Linear	17.000.00	Dollars
	Factors	5 Inspectors		40	Hours		85	\$/Hour			

Line Item A08 - OSR Compensatory Measures

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - OSR Compensatory Measures:

Compensatory measures are invoked in response to Limited Conditions of Operations out-of-tolerance conditions or violation of Operational Safety Requirements (OSR) in the building, and have historically been fire watches for such conditions as out-of-compliance HSP31.11 Material or Heat Detector Deficiencies. The scope is for off-shift fire watch.

Assume 34 days of the year will require 24-hour roving fire watches in FY-99 under OSR Compensatory Measures.

Resource

rces		Cost Element		Skill		Department	Curve	Ouantity	Units
	751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	3.264.00	Hours

Factors 4 Process Specialists 24 hours per month for roving fire watch 34 days per year under OSR

Line Item A09 - LCO Coordinator

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - LCO Coordinator:

The LCO Coordinator performs tracking and trending of LCO, ACs and Unreviewed Safety Questions (USQ) surveillance data; produces notification letters to organizations responsible for performing LCO surveillances; advises such organizations of due/past due surveillances; and maintains LCO files and documentation. This individual also attends shift turnover meetings and plan of the day/week meetings as needed in support of the LCO program; maintains and updates Shift Managers manuals; and updates the Vital Safety Systems (VSS) Status Board.

Resources

es		Cost Element	Skill	Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	P170 OTHER ADMINISTRATIVE & PROFE	R100S RMRS Salaried	Linear	936.00	Hours

Factors 4 Hours per day 234 days

Line Item A10 - Routine Radiological Surveys

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Routine Radiological Surveys:

Routine Radiological Surveys (i.e., pre-job, weekly, monthly, quarterly, semi-annual, etc.) are performed per the Site radiological Control Manual in order to ensure the safety of personnel, the facility, and the environment. The surveys include gamma-neutron, contamination control, baseline and ALARA exposure, glovebox, and/or room surveys.

es		Cost Element			Skill			Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	T050	RADIATI	ION CONTROL TECHNOLIGI	KD10H	776 Com	nplex Steelworkers	Linear	30.00	Hours
I	actors	2 Surveys per Year		3	Hours per set Survey (From	walk-	5	Tank Sets			
	750	STRAIGHT TIME BASE	T050	RADIATI	ION CONTROL TECHNOLIGI	KD10H	776 Com	nplex Steelworkers	Linear	36.00	Hours
I	actors	 Source Inventories and Lea 	ak Testino	n 1	RCTs		18	Hours per Survey			

WBS No: 1DAB01 Baseline Devl Proiect Rocky Flats Closure Project 1DF0102A00 1DAB Activity ID: WBS Filter **Baseline Cost and Basis of Estimate** Activity Filter Starts In FY 750 STRAIGHT TIME BASE T050 RADIATION CONTROL TECHNOLIGI KD10H 776 Complex Steelworkers 2.600.00 Hours Linear Hours per survey (From walk-down) 25 Weekly Surveys Weeks per year 750 STRAIGHT TIME BASE T050 RADIATION CONTROL TECHNOLIGI KD10H 776 Complex Steelworkers Linear 912.00 Hours Hours per Survey (From walk-down) 12 Months Monthly Surveys 750 STRAIGHT TIME BASE T050 RADIATION CONTROL TECHNOLIGI | KD10H | 776 Complex Steelworkers Linear 920.00 Hours Hours per survey (From walk-down) 184 Glovebox Surveys Survey events per year 751 OVERTIME BASE & PRE T050 RADIATION CONTROL TECHNOLIGI | KD10H | 776 Complex Steelworkers Linear 455.80 Hours 0.1 10% Overtime 4558 RCT hours ST for Routine Factors Line Item SYS - Contingency And Escalation BOE Cost Element Resources Skill Department Curve Units CON CONTINGENCY 0000 NONE ZDEPT No Department Linear 58.327.00 Dollars Factors 58327 Dollars ESC ESCALATION 7DEPT No Department 0000 NONE 26 632 03 Dollars Factors 26632.0 Dollars Activity ID: 1DF0102E00 Description: B776/777 Compliance Surveillance - Environmental Cost Risk 2 Schedule Risk Total Prime Line Item Description **Ouantity** BOELabor Labor Hours Labor Cost Materials/ Sub Contingency Burden Cost Total Cost Type Hours/Unit **Total Total** Cost & Escalation Cost HC 1.902 E01 RCRA Inspections 1.00 ea 1.902 45.344 45.344 16.007 61.351 E02 Organic Air Emission Surveillance 1.00 each HC 108 108 2.210 2.210 780 2.990 Λ SYS Contingency And Escalation 1.00 ea FF Λ 0 9.592 9.592 0 9.592 Total for Activity 1DF0102E00: 2.010 47.554 9 592 16.787 73.932 57.146 Line Item E01 - RCRA Inspections Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item BOE level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0. Item Desc - RCRA Inspections for B776/777 include daily inspections of tank systems including process waste tanks (Process Waste Tanks, Tank T1 and T2, SR3, SR4, and SR5, T344, T345, T360, T370 and the FBI Pilot Tanks); Monthly and Annual organic inspection of vacuum accumulators; and weekly inspections of 776.1 and 777.1 Units. The subcontracted support contains 776.1 and 777.1 RCRA Unit Inspections, WEMS Management support, container management and regulatory interface and support from the WEMS Coordinator. Resources Cost Element Units Department 750 STRAIGHT TIME BASE T060 D&D HAZ REDUC TECH / RISK RED | KD10H | 776 Complex Steelworkers Linear 702.00 Hours Process Specialist AWS Daily Inspections for Tanks hours per day (From walk-down) 750 STRAIGHT TIME BASE T060 D&D HAZ REDUC TECH / RISK RED | KD10H | 776 Complex Steelworkers 52.00 Hours Linear weeks Factors Hour per week to inspect the 90 day 1 Process Specialist 52 T060 D&D HAZ REDUC TECH / RISK RED | KD10H | 776 Complex Steelworkers 624.00 Hours 750 STRAIGHT TIME BASE 12 hours per inspection Perform weekly inspections Factors weeks 751 OVERTIME BASE & PRE D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers Linear 524.00 Hours Factors 1 Process Specialist AWS Fridays and weekends Hours per day (From walk-down) Line Item E02 - Organic Air Emission Surveillance Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item BOE level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Item Desc - Organic Air Emission Surveillance Curve Resources Cost Element Skill Department Quantity Units 750 STRAIGHT TIME BASE T060 D&D HAZ REDUC TECH / RISK RED | KD10H | 776 Complex Steelworkers 108.00 Hours Linear Months Process Specialist Factors Surveillance/Month Hours Line Item SYS - Contingency And Escalation BOE Resources Cost Element Skill Department Curve Quantity Units

WBS No: 1DAB01 Rockv Flats Closure Project Project Activity ID: 1DF0102E00 Baseline Cost and Basis of Estimate

Proiect Baseline Devl WBS Filter 1DAB

				Activity Filter	=	Starts In FY
CON	CONTINGENCY	0000	NONE	ZDEPT No Department	Linear	6.585.07 Dollars
Factors	6585.07 Dollars					
	ESCALATION	0000	NONE	ZDEPT No Department	Linear	3.006.73 Dollars

Factors 3006.73 Dollars

Activity ID: 1DF0102M00 Description: B776/777 Compliance Surveillance - Other Cost Risk 2 Schedule Risk 3

Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
	-			Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
M01	Fire Inspections	1.00	ea	HC	356	356	10.262	0	0	10.262	3.622	13.884
M02	SAAM/CAM Surveillance	1.00	ea	HC	1.287	1.287	28.163	0	0	28.163	9.942	38.105
M03	Hood Encl./Portable Down Draft Face Velocity Surv.	1.00	ea	HC	297	297	6.469	0	0	6.469	2.283	8.752
M04	Airhead Survevs/Change Filter Media	1.00	ea	HC	1.495	1.495	32.886	0	0	32.886	11.609	44.495
M05	Annual Smoke Test	1.00	ea	HC	572	572	19.017	0	0	19.017	6.713	25.730
M06	Evewash/Safetv Shower	1.00	ea	HC	90	90	1.841	0	0	1.841	650	2.491
M07	Safety/Inspections	1.00	ea	HC	0	0	0	37.880	0	37.880	0	37.880
M10	NDA Gamma Scans	2.00	ea	HC	292	584	12.971	0	0	12.971	4.579	17.549
M11	DOP Filter Surveillance	1.00	ea	HC	540	540	11.822	0	0	11.822	4.173	15.995
SYS	Contingency And Escalation	1.00	ea	EE	0	0	0	0	30.543	30.543	0	30.543
		Total for Activi	tv 1DF0102N	100:		5.222	123.431	37.880	30.543	191.855	43.571	235.426

Line Item M01 - Fire Inspections

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - This activity consists of Fire Inspections of the Flammable Cabinets (21 each), Fire Extinguisher Inspections (164) and monthly combustible loading inspections per PRO-035-FI-776/777.

Resources

es		Cost E	lement			Skill			Department	Curve	Ouantity	Units
	750	STRAIGHT TIM	ME BASE	E130	OTHER	ENGINEERS	R100S	RMRS S	Salaried	Linear	216.00	Hours
_	Factors	1En	gineer		12	monthly inspections		18	hours per month combustible loading			
	750	STRAIGHT TIM	ME BASE	T060	D&D HA	Z REDUC TECH / RISK RED	KD10H	776 Cor	nplex Steelworkers	Linear	42.00	Hours
_	Factors	0.25 ho	urs per cabinet for month	nly	12	months		14	Flammable Cabinets			
	750	STRAIGHT TIM	ME BASE	T060	D&D HA	Z REDUC TECH / RISK RED	KD10H	776 Cor	nplex Steelworkers	Linear	98.40	Hours
	г.	0.05			40			404	Fine Fortis and all and			

Factors 0.05 hours per monthly Inspection per 12 months 164 Fire Extinguishers

Line Item M02 - SAAM/CAM Surveillance

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity consists of the LCO Surveillance required to verify the rooms listed in the OSR are covered by an operable Selective Alpha Air Monitor (SAAM) system. This system is used to detect the presence of airborne radioactivity above the alarm point setting of the instrument and to activate an alarm to warn personnel in the area to minimize personnel exposure. A twice-weekly surveillance is performed to visually check operating area SAAMs and recirculation air plenum SAAMs for proper settings and air flow of >.8 cubic feet per minute (cfm) and <3 cfm. Also visually check the operating effluent SAAM for proper SAAM settings and airflow of <2 cfm and <3cfm. Per ROI 4.05, Rev. 1.

RCTs surveilling 90 SAAM/CAAM units twice per week. During the surveillance, the filter papers are changed.

Resources

es	Cost Element	Skill	Department	Curve Ouantity	Units
Ĺ	750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear 1.170.00 Ho	ours
	Factors 0.125 hours per surveillance	2 Surveillances per week	52 weeks	90 SAAM/CAM Units	
	751 OVERTIME BASE & PRE.	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear 117.00Hd	ours

Factors 0.1 10% overtime per week (based on 1 RCT 1170 hours straight time CAM/SAAM

Line Item M03 - Hood Encl./Portable Down Draft Face Velocity Surv.

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity consists of the LCO Surveillance of the minimum face velocity on Zone 1A enclosures (gloveboxes, hoods and downdraft tables). A

WBS No: 1DAB01 Activity ID: 1DF0102M00

the RCTs.

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter

Baseline Devl 1DAB

monthly surveillance is performed by Radiologica Control Technicians (RCTs) to either verify the enclosure minimum average face velocity >150 fpm or document that any loose surface alpha contamination is <200 dpm/100 cm2 in each Zone 1A enclosure. Operability of Zones 1 1A, and II ventilation systems is needed to maintain negative pressure and to mitigate the release of radioactive materials to the environment. Process Specialists open and close hoods and b-boxes for

Resources

es	Cost Element	Skill	Department	Curve	Quantity Units
	750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	90.00 Hours
I	Factors 0.5 hours per hood surveillance	e (From 12 months	15 hood surveillances per month		
	750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	90.00 Hours
I	Factors 0.5 hours per survey (From wa	alk-down) 12 months	15 Portable Downdraft Surveillances	per	
	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	90.00 Hours
I	Factors 0.5 hours per hood to survey (I	From walk- 12 months	15 monthly hood surveillances		
L	751 OVERTIME BASE & PRE.	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	18.00 Hours
I	Factors 0.1 10% overtime	1 RCT	180 hours per vear hood/enclosure	ı	
L	751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	9.00 Hours
I	Factors 0.1 10% overtime	90 ST hours process specialist			

Line Item M04 - Airhead Surveys/Change Filter Media

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document. - Rev 0.

Item Desc - Inspect and maintain the permanently installed air monitoring system. RCTs perform airhead surveillances.

Resources

s		Cost Element		Skill				Department	Curve	Quantity	Units
L	750 STF	RAIGHT TIME BASE	T050	RADIATION CON	TROL TECHNOLIGI	KD10H	776 Cor	nplex Steelworkers	Linear	138.60	Hours
1	Factors (0.07 hours per unit calibration pe	r month	12 month	3		165	Airhead Units requiring calibration			
L	750 STF	RAIGHT TIME BASE	T050	RADIATION CON	TROL TECHNOLIGI	KD10H	776 Cor	nplex Steelworkers	Linear	1.206.40	Hours
1	Factors (0.08 hours per unit to change (F	om walk-	- 2 change	es per week		52	weeks	145 Filter Me	edia Units	
L	751 OVI	ERTIME BASE & PRE.	T050	RADIATION CON	TROL TECHNOLIGI	KD10H	776 Cor	nplex Steelworkers	Linear	134.50	Hours
Į.	Factors (0.1 10% overtime		1345 ST hou	irs RCT support airh	ead					
	751 OVI	ERTIME BASE & PRE.	T060	D&D HAZ REDUC	TECH / RISK RED	KD10H	776 Cor	nplex Steelworkers	Linear	15.60	Hours
1	Factors C	0.1 10% overtime		156 hours	process specialist ST	filter					

Line Item M05 - Annual Smoke Test

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity consists of RCTs performing tri-annual (not required in FY-99 but is required in FY-00) air flow pattern testing on 90 SAAM/CAM units annually. During this surveillance, special air flow conditions may need to be established (ie. roll-up doors open and/or shut, ventilation systems at reduced flows, etc.) and tested. These tests are performed off-shift to minimize impacts to facility operations.

Resources

es		Cost Element	Skill			Department	Curve	Quantity	Units
	751	OVERTIME BASE & PRE.	M010	FOREMEN / TEAM LEADS / GROUP	R100S	RMRS Salaried	Linear	16.00	Hours
I	actors	16 Hours Foreman time to sup	ervise						
	751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	556.00	Hours

Factors 556 hours RCT time to inspect placement

Line Item M06 - Eyewash/Safety Shower

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Safety Showers and Eyewash Surveillances ensure that DOE, ANZI, and other requirements are met. Safety Showers and Eyewash Stations are flow tested monthly. A checklist is completed and submitted to the Building Manager for approval. Appropriate documentation is kept on file.

Resources Cost Element Skill Department Curve Quantity Units 750 STRAIGHT TIME BASE T060 D&D HAZ REDUC TECH / RISK RED KD10H T76 Complex Steelworkers Linear 90.00Hours

Factors 0.25 hours to inspect per month (From 12 months 30 Eye wash stations

WBS No: 1DAB01 1DF0102M00 Activity ID:

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter Activity Filter

Baseline Devl 1DAB

Starts In FY

Line Item M07 - Safety/Inspections

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Safety/Housekeeping Inspections consists of various activities that protect building personnel.

Resources

es			Cost Element			Skill		Department	Curve	Ouantity	Units	
	A5H S	SUBCO	NTRACTED SRVS	E020	CIVIL ENG	INEERS	K399S	Building 776 Project	Linear	37.880.00	Dollars	
	Factors	1	Lump Sum		37880	Dollars						

Line Item M10 - NDA Gamma Scans

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - NDA Gamma Scans are required to determine the Pu gram quantity in fissile solution tanks (2 each).

Resource

ces		Cost Element		Skill		Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	T070	MAINT. TECHS. (INSTRUMENT TEC	KD10H	776 Complex Steelworkers	Linear	40.00	Hours
	Factors	1 Annual test		5 Tanks requiring NDA Scans		8 hours per NDA Scan			
	750	STRAIGHT TIME BASE	T070	MAINT. TECHS. (INSTRUMENT TEC	KD10H	776 Complex Steelworkers	Linear	252.00	Hours

18 Hours per Scan NDA Testing Techs Factors Plenums

Line Item M11 - DOP Filter Surveillance

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - DOP Filter Surveillances are required to determine if plenum filters are operating as designed.

Resources

s		Cost Element		Skill			Department	Curve	Ouantity Units
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Co	mplex Steelworkers	Linear	324.00 Hours
I	Factors	4 RCTs at each plenum		9 plenums		9	hours each plenum		
L	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Cc	mplex Steelworkers	Linear	162.00 Hours
I	Factors	2 HRTs at each plenum		9 plenums	,	9	hours each plenum		
L	751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Cc	mplex Steelworkers	Linear	36.00 Hours
I	Factors	4 RCTs at each plenum		1 Primary plenum	,	9	hours each plenum		
L	751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Cc	mplex Steelworkers	Linear	18.00 Hours
7	Fastana.	O LIDTo at each planum		1 Drimory planting		0	haura aaah nlanum		

Factors 2 HRTs at each plenum Primary plenum hours each plenum

Line Item SYS - Contingency And Escalation

BOE

Skill Resources Cost Element Units Department Curve CON CONTINGENCY 0000 NONE ZDEPT No Department Linear 20.969.05 Dollars Factors 20969.1 Dollars ESC ESCALATION 0000 NONE ZDEPT No Department 9.574.44 Dollars Linear

Factors 9574.44 Dollars

Activity ID: 1DF0103A00 Description: B776/777 Compliance Surveillance - Authorization Cost Risk 2 Schedule Risk 3

Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
A02	Inert Atmosphere - Oxvgen Analyzer	1.00	ea	HC	172	172	3.709	0	0	3.709	1.283	4.992
A04	Emergency Power/UPS	1.00	ea	HC	232	232	5.812	0	0	5.812	2.011	7.822
A05	Criticality Accident Alarm System	1.00	ea	HC	1.200	1.200	40.977	0	0	40.977	14.178	55.155
A06	Fire Detection/Fire Suppression	1.00	ea	HC	180	180	3.700	136.000	0	139.700	1.280	140.980
A07	Criticality Safety Operations	1.00	ea	HC	688	688	14.076	17.000	0	31.076	4.870	35.947
A08	OSR Compensatory Measures	1.00	ea	HC	3,264	3,264	106,831	0	0	106,831	36,963	143,794
A09	LCO Coordinator	1.00	ea	HC	936	936	24,551	0	0	24,551	8,495	33,046
A10	Routine Radiological Surveys	1.00	ea	HC	4,954	4,954	108,471	0	0	108,471	37,531	146,001

Baseline Devl Proiect Rocky Flats Closure Project WBS Filter 1DAB

Baseline Cost and Basis of Estimate Activity Filter Starts In FY 1.00 ea SYS Contingency And Escalation 157.010 157.010 Total for Activity 1DF0103A00: 11.626 308.127 153.000 157.010 618.136 106.612

Line Item A02 - Inert Atmosphere - Oxygen Analyzer

1DAB01

1DF0103A00

BOE

WBS No:

Activity ID:

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Inert Atmosphere - Oxygen Analyzer:

This LCO surveillance monitors Zone 1 inert systems and designated enclosures for fire safety involving pyrophoric plutonium. SOEs and Maintenance personnel ensure that gloveboxes that require an inert atmosphere and are used to handle in-process pyrophoric plutonium are monitored by an operable oxygen analyzer. A monthly surveillance is performed to readjust the oxygen analyzers to manufacturer's specification and to test the alarm at the 5% by volume limit.

Resources

es	Cost Element				Skill		Department				Curve	Quantity	Units
Į	750	STRAIGH	T TIME BASE	C020	ELECTR	ICIANS	KD10H	776 Cor	nplex Steelworkers		Linear	147.84	Hours
	Factors	1.2	Hours per Surveillance (Fro	om walk-	2	Electricians		14	Oxygen Analyzers	4	Quarterly Su	rveillances	
		1.1	10% surveillance following	failure									
	750	STRAIGH [*]	T TIME BASE	T050	RADIATI	ON CONTROL TECHNOLIGI	KD10H	776 Cor	nplex Steelworkers		Linear	24.64	Hours
	Factors	0.4	Hours per unit to perform s	urveilland	e 1	RCT		14	Oxygen Analyzer Units	4	quarterly sur	veillances	

10% surveillance following failure 1.1

Line Item A04 - Emergency Power/UPS

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Emergency Power/UPS:

This activity consists of the LCO surveillance requiring the emergency generator to be tested on a monthly basis for a minimum of one hour. The diesel generators shall be tested for automatic startup and pickup of loads required for the condition of loss of offsite electrical power. Process Specialists support vault/alarm access while the Alarm Tech resets five (5) panels. This scope is perfomed during off-shift so that facility operations do not need to be suspended for the Emergency Power testing.

Resources

es		Cost Element		Skill			Department	Curve	Quantity Units
	750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Cc	emplex Steelworkers	Linear	32.00 Hours
į.	Factors	2 Electricians		4 hours per inspectio	n	4	quarterly inspections		
	750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Cc	emplex Steelworkers	Linear	72.00 Hours
نے ۔	Factors	2 Electricians		3 hours each per mo	nth for UPS	12	monthly inspections		
	750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Cc	mplex Steelworkers	Linear	48.00 Hours
نے ۔	Factors	2 Electricians		2 hours per month for	r batterv	12	monthly inspections		
	750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Cc	mplex Steelworkers	Linear	16.00 Hours
نے ۔	Factors	1 annual inspection		2 Electricians		8	hours for annual battery inspection		
L	751	OVERTIME BASE & PRE.	C020	ELECTRICIANS	KD10H	776 Cc	mplex Steelworkers	Linear	32.00 Hours
نے ۔	Factors	2 Electricians		4 Hours per Inspection	on (From walk-	4	Quarterly Inspections		
L	751	OVERTIME BASE & PRE.	C100	AUTO MECHANIC	KD10H	776 Cc	mplex Steelworkers	Linear	16.00 Hours
نے ۔	Factors	1 Mechanic		4 Hours per Inspection	on (Monitor Diesel	4	Quarterly Inspections		
L	751	OVERTIME BASE & PRE.	T070	MAINT, TECHS, (INSTRUMEN	NT TEC KD10H	776 Cc	mplex Steelworkers	Linear	16.00 Hours
	Factors	 Alarm Technician 		4 Hours per Inspection	on (From walk-	4	Quarterly Inspections		

Line Item A05 - Criticality Accident Alarm System

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O

Item Desc - Criticality Accident Alarm System:

This LCO surveillance is performed by RCTs and Radiological Engineering in order to ensure that a criticality alarm system (utilizing detectors and coincidence circuitry in the criticality alarm system main panel) for criticality accident detection has been installed and is operable in all areas where fissile materials are handled, stored, or processed. A monthly surveillance is performed, where each detector is tested with a source to verify that it is within an acceptable range for the specific test source. These monthly surveillances are performed on off-shifts to minimize the impact to daily facility operation (overtime).

Resources	Cost Element	Skill	Department	Curve	Ouantity	Units	
	•	•	•				

157.010

724.748

WBS No: 1DAB01 Rockv Flats Closure Project Project Baseline Devl
Activity ID: 1DF0103A00 Baseline Cost and Basis of Estimate

		Buscillie Gost un	a Basis	OI LOUI	Activity Filter	*	Starts In FY *
751 OVERTIME BASE & PRE.	M010 FOREMEN	/ TEAM LEADS / GROUP	K399S	Buildina	776 Proiect	Linear	96.00 Hours
Factors 4 hours per Surveillance (Fro	m walk- 12 M	Monthly Surveillances		2	ARCIE Supervisor		
751 OVERTIME BASE & PRE.	M010 FOREMEN	/ TEAM LEADS / GROUP	K399S	Buildina	776 Proiect	Linear	48.00 Hours
Factors 4 Hours per Surveillance (Fro	om walk- 1 F	RCT Supervisor		12	Monthly Surveillances		
751 OVERTIME BASE & PRE.	T050 RADIATION	CONTROL TECHNOLIGI	KD10H	776 Com	plex Steelworkers	Linear	480.00 Hours
Factors 4 Hours per Surveillance (Fro	m walk- 10 F	RCTs		12	Monthly Surveillances		
751 OVERTIME BASE & PRE.	T060 D&D HAZ R	EDUC TECH / RISK RED	KD10H	776 Com	plex Steelworkers	Linear	144.00 Hours
Factors 4 hours per monthly Surveilla	nce event 3	Process Specialist		12	months		
751 OVERTIME BASE & PRE.	T070 MAINT. TEC	CHS. (INSTRUMENT TEC	KD10H	776 Com	plex Steelworkers	Linear	432.00 Hours
Environ O Haura nar aun sillanas /Era	ا بالمبيرمم	ADCIE Tachaalagieta (alarm	toobo)	10	Manthly Constillances		

Factors 9 Hours per surveillance (From walk- 4 ARCIE Technologists (alarm techs) 12 Monthly Surveillances

Line Item A06 - Fire Detection/Fire Suppression

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Fire Detection/Fire Suppression:

This LCO surveillance ensures the operability of the Fire Detection System and the Fire Suppression System. A visual inspection of the fire detection system is performed on a monthly basis. A quarterly surveillance includes local audible alarms, panel operation, alarm test to the Central Alarm Station, and vault heat detection system and plenum heat detectors. Also included is Glovebox overheat testing.

Resources

ces		Cost Element		Skill		Department	Curve	Quantity	Units
L	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	60.00	Hours
_	Factors	5 Hours per week		12 GB O/H Tests per vear		1 RCT			
L	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	120.00	Hours
_	Factors	5 Hours per Test		12 GB O/H Tests per vear		2 Process Specialist			
Į	A5H	SUBCONTRACTED SRVS	E120	SAFETY ENGINEERS	K263S	Fire Tactical Operations	Linear	136.000.00	Dollars

Factors 1 refer to letter Brad Smeaton to Mike 136000 dollars lump sum 1 Letter number BES-081-98

Line Item A07 - Criticality Safety Operations

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0

Item Desc - Criticality Safety Operations:

Criticality Safety Inspections are required monthly for JH98/NSP-10; quarterly per 5B02 and annually.

Resources

es		Cost Element		_	Skill			Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	T060	D&D HA	Z REDUC TECH / RISK RED	KD10H	776 Co	mplex Steelworkers	Linear	432.00	Hours
r	Factors	1 Process Specialists		12	Monthly Surveillances	,	36	hours per Surveillance (JH98/NSP-			
L	750	STRAIGHT TIME BASE	T060	D&D HA	AZ REDUC TECH / RISK RED	KD10H	776 Co	mplex Steelworkers	Linear	216.00	Hours
	Factors	2 Process Specialists		4	Quarterly Surveillances		27	Hours per quarterly surveillance			
Ĺ	750	STRAIGHT TIME BASE	T060	D&D HA	AZ REDUC TECH / RISK RED	KD10H	776 Co	mplex Steelworkers	Linear	40.00	Hours
r	Factors	40 hours per annual surveillan	ce	_ 1	Process Specialist	,					
	A5H	SUBCONTRACTED SRVS	0000	NONE		K399S	Building	776 Proiect	Linear	17.000.00	Dollars
	Factors	5 Inspectors		40	Hours		85	\$/Hour			

Line Item A08 - OSR Compensatory Measures

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - OSR Compensatory Measures:

Compensatory measures are invoked in response to Limited Conditions of Operations out-of-tolerance conditions or violation of Operational Safety Requirements (OSR) in the building, and have historically been fire watches for such conditions as out-of-compliance HSP31.11 Material or Heat Detector Deficiencies. The scope is for off-shift fire watch.

Assume 34 days of the year will require 24-hour roving fire watches in FY-99 under OSR Compensatory Measures.

Resources Cost Element Skill Department Curve Quantity Units

WBS No: 1DAB01 **Rocky Flats Closure Project** Activity ID: 1DF0103A00 **Baseline Cost and Basis of Estimate**

Proiect Baseline Devl WBS Filter 1DAB

Activity Filter Starts In FY T060 D&D HAZ REDUC TECH / RISK RED | KD10H | 776 Complex Steelworkers 3.264.00 Hours Linear

Factors 4 Process Specialists hours per month for roving fire watch 34 days per year under OSR

Line Item A09 - LCO Coordinator

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - LCO Coordinator:

751 OVERTIME BASE & PRE

The LCO Coordinator performs tracking and trending of LCO, ACs and Unreviewed Safety Questions (USQ) surveillance data; produces notification letters to organizations responsible for performing LCO surveillances; advises such organizations of due/past due surveillances; and maintains LCO files and documentation. This individual also attends shift turnover meetings and plan of the day/week meetings as needed in support of the LCO program; maintains and updates Shift Managers manuals; and updates the Vital Safety Systems (VSS) Status Board.

Resource

ces		Cost Element		Skill		Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	R100S	RMRS Salaried	Linear	936.00	Hours

4 Hours per day Factors days

Line Item A10 - Routine Radiological Surveys

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Routine Radiological Surveys:

Routine Radiological Surveys (i.e., pre-job, weekly, monthly, quarterly, semi-annual, etc.) are performed per the Site radiological Control Manual in order to ensure the safety of personnel, the facility, and the environment. The surveys include gamma-neutron, contamination control, baseline and ALARA exposure, glovebox, and/or room surveys.

Resources

es		Cost Element			Skill			Department	Curve	Ouantity	Units
Į	750	STRAIGHT TIME BASE	T050	RADIATIO	N CONTROL TECHNOLIGI	KD10H	776 Co	mplex Steelworkers	Linear	30.00	Hours
	Factors	2 Survevs per Year		3	Hours per set Survey (From	walk-	5	Tank Sets			
	750	STRAIGHT TIME BASE	T050	RADIATIO	N CONTROL TECHNOLIGI	KD10H	776 Co	mplex Steelworkers	Linear	36.00	Hours
r	Factors	2 Source Inventories and Lea	k Testina	_1	RCTs		18	Hours per Survev			,
Ĺ	750	STRAIGHT TIME BASE	T050	RADIATIO	N CONTROL TECHNOLIGI	KD10H	776 Co	mplex Steelworkers	Linear	2.600.00	Hours
r	Factors	2 Hours per survey (From wa	lk-down)	25	Weekly Surveys		52	Weeks per vear			
Ĺ	750	STRAIGHT TIME BASE	T050	RADIATIO	N CONTROL TECHNOLIGI	KD10H	776 Co	mplex Steelworkers	Linear	912.00	Hours
	Factors	2 Hours per Survey (From wa	lk-down)	12	Months		38	Monthly Surveys			
Ĺ	750	STRAIGHT TIME BASE	T050	RADIATIO!	N CONTROL TECHNOLIGI	KD10H	776 Co	mplex Steelworkers	Linear	920.00	Hours
r	Factors	2 Survey events per year		2.5	Hours per survey (From wall	k-down)	184	Glovebox Survevs			
Į	751	OVERTIME BASE & PRE.	T050	RADIATIO	N CONTROL TECHNOLIGI	KD10H	776 Co	mplex Steelworkers	Linear	455.80	Hours
	r .	0.4 400/ 0		4550	DOT become OT to a Decision						

Factors 0.1 10% Overtime RCT hours ST for Routine

Line Item SYS - Contingency And Escalation

BOE

Resources

es	Cost Element		Skill		Department	Curve	Quantity	Units
CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	113.472.60	Dollars
Factors	113473 Dollars							
FSC	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	43 537 17	Dollars

Factors 43537.2 Dollars

Activity ID: 1DF	Description: B776/777 Compliance Surv	eillance - En	vironmental					Cost Risk	2 Schedule R	Risk 3		
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
E01	RCRA Inspections	1.00	ea	HC	1.902	1.902	45.344	0	0	45.344	15.689	61.034
E02	Organic Air Emission Surveillance	1.00	each	HC	108	108	2.210	0	0	2.210	765	2.974
SYS	Contingency And Escalation	1.00	ea	EE	0	0	0	0	17.702	17.702	0	17.702
	To	tal for Activit	ty 1DF0103E	00:		2.010	47.554	0	17.702	65.256	16.454	81.709

Line Item E01 - RCRA Inspections

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

WBS No: 1DAB01 Activity ID: 1DF0103E00

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter Baseline Devl 1DAB

3

Starts In FY

Document - Rev 0.

Item Desc - RCRA Inspections for B776/777 include daily inspections of tank systems including process waste tanks (Process Waste Tanks, Tank T1 and T2, SR3, SR4, and SR5, T344, T345, T360, T370 and the FBI Pilot Tanks); Monthly and Annual organic inspection of vacuum accumulators; and weekly inspections of 776.1 and 777.1 Units. The subcontracted support contains 776.1 and 777.1 RCRA Unit Inspections, WEMS Management support, container management and regulatory interface and support from the WEMS Coordinator.

Resources

es		Cost Element		Skill		Department	Curve	Ouantity Units
	750	STRAIGHT TIME BASE	T060 D	0&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	702.00 Hours
	Factors	1 Process Specialist		234 AWS Daily Inspections for T	anks	3 hours per day (From walk-down)		
	750	STRAIGHT TIME BASE	T060 D	0&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	52.00 Hours
	Factors	1 Hour per week to inspect the	e 90 dav	1 Process Specialist		52 weeks		
	750	STRAIGHT TIME BASE	T060 D	0&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	624.00 Hours
	Factors	12 hours per inspection		52 weeks		1 Perform weekly inspections		
	751	OVERTIME BASE & PRE.	T060 D	0&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	524.00 Hours
	Factors	1 Process Specialist		131 AWS Fridays and weekends	3	4 Hours per day (From walk-down)		

Line Item E02 - Organic Air Emission Surveillance

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Organic Air Emission Surveillance

Resources

es		Cost Element	Skill	Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	108.00	Hours

Factors 1 Surveillance/Month Hours 12 Months Process Specialist

Line Item SYS - Contingency And Escalation

BOE

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
C	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	12.793.09	Dollars
Fa	ictors	12793.1 Dollars							
	ESC	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	4.908.45	Dollars

Factors 4908.45 Dollars

Activity ID: 1DF0103M00

Description: B776/777 Compliance Surveillance - Other Cost Risk 2 Schedule Risk

Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
M01	Fire Inspections	1.00	ea	HC	356	356	10.262	0	0	10.262	3.551	13.813
M02	SAAM/CAM Surveillance	1.00	ea	HC	1.287	1.287	28.163	0	0	28.163	9.744	37.907
M03	Hood Encl./Portable Down Draft Face Velocity Surv.	1.00	ea	HC	297	297	6.469	0	0	6.469	2.238	8.707
M04	Airhead Survevs/Change Filter Media	1.00	ea	HC	1.495	1.495	32.886	0	0	32.886	11.379	44.265
M05	Annual Smoke Test	1.00	ea	HC	572	572	19.017	0	0	19.017	6.580	25.597
M06	Evewash/Safetv Shower	1.00	ea	HC	90	90	1.841	0	0	1.841	637	2.479
M07	Safety/Inspections	1.00	ea	HC	0	0	0	37.880	0	37.880	0	37.880
M10	NDA Gamma Scans	2.00	ea	HC	292	584	12.971	0	0	12.971	4.488	17.458
M11	DOP Filter Surveillance	1.00	ea	HC	540	540	11.822	0	0	11.822	4.090	15.913
SYS	Contingency And Escalation	1.00	ea	EE	0	0	0	0	56.422	56.422	0	56.422
		Total for Activi	ty 1DF0103I	M00:		5.222	123,431	37.880	56.422	217.733	42.707	260.440

Line Item M01 - Fire Inspections

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity consists of Fire Inspections of the Flammable Cabinets (21 each), Fire Extinguisher Inspections (164) and monthly combustible loading inspections per PRO-035-FI-776/777.

Resources Cost Element Skill Department Curve **Quantity** Units WBS No: 1DAB01 Activity ID: 1DF0103M00

Rocky Flats Closure Project Rasalina Cost and Rasis of Estimate

Baseline Devl Proiect WBS Filter 1DAB

				Dascille Oost al	iu Dasis	OI ESti	Activity Filter *		Starts In FY *
750	STRAIGHT TIME BASE	E130	OTHER EN	IGINEERS	R100S	RMRS S	Salaried	Linear	216.00 Hours
Factors	1 Engineer		. 12	monthly inspections	1	18	hours per month combustible loading		
750	STRAIGHT TIME BASE	T060	D&D HAZ F	REDUC TECH / RISK RED	KD10H	776 Con	nplex Steelworkers	Linear	42.00 Hours
Factors	0.25 hours per cabinet for month	lv	. 12	months		14	Flammable Cabinets		
750	STRAIGHT TIME BASE	T060	D&D HAZ F	REDUC TECH / RISK RED	KD10H	776 Con	nplex Steelworkers	Linear	98.40 Hours
Factors	0.05 hours per monthly Inspection	n per	12	months		164	Fire Extinguishers		

Line Item M02 - SAAM/CAM Surveillance

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O

Item Desc - This activity consists of the LCO Surveillance required to verify the rooms listed in the OSR are covered by an operable Selective Alpha Air Monitor (SAAM) system. This system is used to detect the presence of airborne radioactivity above the alarm point setting of the instrument and to activate an alarm to warn personnel in the area to minimize personnel exposure. A twice-weekly surveillance is performed to visually check operating area SAAMs and recirculation air plenum SAAMs for proper settings and air flow of >.8 cubic feet per minute (cfm) and <3 cfm. Also visually check the operating effluent SAAM for proper SAAM settings and airflow of <2 cfm and <3cfm. Per ROI 4.05, Rev. 1.

RCTs surveilling 90 SAAM/CAAM units twice per week. During the surveillance, the filter papers are changed.

Resources

es		C	Cost Element			Skill			Department		Curve	Ouantity	Units
	750	STRAIGH	T TIME BASE	T050	RADIAT	ION CONTROL TECHNOLIGI	KD10H	776 Con	nplex Steelworkers		Linear	1.170.00	Hours
	Factors	0.125	hours per surveillance		2	Surveillances per week		52	weeks	90	SAAM/CAM	Units	
	751	OVERTIM	E BASE & PRE.	T050	RADIAT	ION CONTROL TECHNOLIGI	KD10H	776 Con	nplex Steelworkers		Linear	117.00	Hours
	Factors	0.1	10% overtime per week (ba	ased on	1	RCT		1170	hours straight time CAM/SAAM				

0.1 10% overtime per week (based on 1 RCT

Line Item M03 - Hood Encl./Portable Down Draft Face Velocity Surv.

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity consists of the LCO Surveillance of the minimum face velocity on Zone 1A enclosures (gloveboxes, hoods and downdraft tables). A monthly surveillance is performed by Radiologica Control Technicians (RCTs) to either verify the enclosure minimum average face velocity >150 fpm or document that any loose surface alpha contamination is <200 dpm/100 cm2 in each Zone 1A enclosure. Operability of Zones 1 1A, and II ventilation systems is needed to maintain negative pressure and to mitigate the release of radioactive materials to the environment. Process Specialists open and close hoods and b-boxes for

Resources

s	Cost Element	Skill	Department	Curve	Ouantity Units
	750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	90.00 Hours
	Factors 0.5 hours per hood surveillance	e (From 12 months	15 hood surveillances per month		
	750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	90.00 Hours
	Factors 0.5 hours per survey (From wal	alk-down) 12 months	15 Portable Downdraft Surveillances r	per	
Į	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	90.00 Hours
í	Factors 0.5 hours per hood to survey (F	From walk- 12 months	15 monthly hood surveillances		
Į	751 OVERTIME BASE & PRE.	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	18.00 Hours
	Factors 0.1 10% overtime	1 RCT	180 hours per vear hood/enclosure		
	751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	9.00 Hours
	Factors 0.1 10% overtime	90 ST hours process specialist			

Line Item M04 - Airhead Surveys/Change Filter Media

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Inspect and maintain the permanently installed air monitoring system. RCTs perform airhead surveillances.

ces		С	Cost Element			Skill			Department	(Curve	Ouantity	Units
	750	STRAIGH1	T TIME BASE	T050	RADIATIO	ON CONTROL TECHNOLIGI	KD10H	776 Cor	mplex Steelworkers	L	inear	1.206.40	Hours
	Factors	0.08	hours per unit to change (F	rom walk	- 2	changes per week		52	weeks	145	Filter Media U	Jnits	
	750	STRAIGH1	T TIME BASE	T050	RADIATIO	ON CONTROL TECHNOLIGI	KD10H	776 Cor	mplex Steelworkers	L	inear	138.60	Hours
	Factors	0.07	hours per unit calibration per	er month	12	months		165	Airhead Units requiring calibration				

WBS No: 1DAB01 Rockv Flats Closure Project Project Baseline Devl
Activity ID: 1DF0103M00 Baseline Cost and Basis of Estimate WBS Filter 1DAB

					Activity Filter	^	Starts In FY
751	OVERTIME BASE & PRE.	T050 RADIA	TION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	134.50 Hours
Factors	0.1 10% overtime	1345	ST hours RCT support airhe	ad			
751	OVERTIME BASE & PRE.	T060 D&D H	AZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	15.60 Hours
Factors	0.1 10% overtime	156	hours process specialist ST	filter			

Line Item M05 - Annual Smoke Test

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - This activity consists of RCTs performing tri-annual (not required in FY-99 but is required in FY-00) air flow pattern testing on 90 SAAM/CAM units annually. During this surveillance, special air flow conditions may need to be established (ie. roll-up doors open and/or shut, ventilation systems at reduced flows, etc.) and tested. These tests are performed off-shift to minimize impacts to facility operations.

Resources

es		Cost Element		Skill		Department	Curve	<i>Ouantity</i>	Units
	751	OVERTIME BASE & PRE.	M010	FOREMEN / TEAM LEADS / GROUP	R100S	RMRS Salaried	Linear	16.00	Hours
	Factors	16 Hours Foreman time to sup	ervise						
	751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	556.00	Hours

Factors 556 hours RCT time to inspect placement

Line Item M06 - Eyewash/Safety Shower

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Safety Showers and Eyewash Surveillances ensure that DOE, ANZI, and other requirements are met. Safety Showers and Eyewash Stations are flow tested monthly. A checklist is completed and submitted to the Building Manager for approval. Appropriate documentation is kept on file.

Resources

es		C	ost Element			Skill				Department	Curve	Ouantity	Units	
	750	STRAIGH	T TIME BASE	T060	D&D HAZ	REDUC TECH	1 / RISK RED	KD10H	776 Con	nplex Steelworkers	Linear	90.00	Hours	
	Factors	0.25	hours to inspect per month	(From	12	months			30	Eve wash stations				

Line Item M07 - Safetv/Inspections

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Safety/Housekeeping Inspections consists of various activities that protect building personnel.

Resources

rces	Cost Element	Skill	Department	Curve	Ouantity	Units
	A5H SUBCONTRACTED SRVS	E020 CIVIL ENGINEERS	K399S Building 776 Project	Linear	37.880.00	Dollars

Factors 1 Lump Sum 37880 Dollars

Line Item M10 - NDA Gamma Scans

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - NDA Gamma Scans are required to determine the Pu gram quantity in fissile solution tanks (2 each).

Resources

es L		Cost Element	Skill	Department	Curve	Ouantity Units
	750	STRAIGHT TIME BASE	T070 MAINT, TECHS, (INSTRUMENT TEC	KD10H 776 Complex Steelworkers	Linear	40.00 Hours
	Factors	1 Annual test	5 Tanks requiring NDA Scans	8 hours per NDA Scan		
	750	STRAIGHT TIME BASE	T070 MAINT, TECHS, (INSTRUMENT TEC	KD10H 776 Complex Steelworkers	Linear	252.00 Hours

Factors 18 Hours per Scan 7 Plenums 2 NDA Testing Techs

Line Item M11 - DOP Filter Surveillance

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - DOP Filter Surveillances are required to determine if plenum filters are operating as designed.

Resources	Cost Element	Skill	Department	Curve	Ouantity	Units

WBS No: 1DAB01 Proiect **Rocky Flats Closure Project** Activity ID: 1DF0103M00 **Baseline Cost and Basis of Estimate**

Baseline Devl WBS Filter 1DAB

		Activ	itv Filter *	Starts In FY *
750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	324.00 Hours
Factors 4 RCTs at each plenum	9 plenums	9 hours each plenum		
750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	162.00 Hours
Factors 2 HRTs at each plenum	9 plenums	9 hours each plenum		
751 OVERTIME BASE & PRE.	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	36.00 Hours
Factors 4 RCTs at each plenum	1 Primary plenum	9 hours each plenum		
751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	18.00 Hours
Factors 2 HRTs at each plenum	1 Primary plenum	9 hours each plenum		

HRIs at each plenum

Line Item SYS - Contingency And Escalation

BOE

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	40.776.65	Dollars
	Factors	40776.7 Dollars							
		ESCALATION	0000	NONE	ZDEPT	No Department	Linear	15.645.19	Dollars

15645.2 Dollars

Activity ID: 1DXXXFA00 Description: End of B776/777 Compliance Sury - Authorization

Cost Risk 2 Schedule Risk

ACTIVITY ID. 107	Description. Lind of B110/1111 Compliant		Cost Risk 2 Schedule Risk 3									
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
A02	Inert Atmosphere - Oxvaen Analyzer	0.66	ea	HC	172	113	2.440	0	0	2.440	688	3.128
A04	Emergency Power/UPS	0.66	ea	HC	232	153	3.823	0	0	3.823	1.078	4.902
A05	Criticality Accident Alarm System	0.66	ea	HC	1.200	789	26.958	0	0	26.958	7.602	34.561
A06	Fire Detection/Fire Suppression	0.66	ea	HC	180	118	2.434	89.474	0	91.908	686	92.595
A07	Criticality Safety Operations	0.66	ea	HC	688	453	9.261	11.184	0	20.445	2.612	23.057
A08	OSR Compensatory Measures	0.66	ea	HC	3.264	2.147	70.283	0	0	70.283	19.820	90.103
A09	LCO Coordinator	0.66	ea	HC	936	616	16.152	0	0	16.152	4.555	20.707
A10	Routine Radiological Surveys	0.66	ea	HC	4.954	3.259	71.362	0	0	71.362	20.124	91.486
SYS	Contingency And Escalation	1.00	ea	EE	0	0	0	0	51.382	51.382	0	51.382
	To	tal for Activi	ty 1DXXXFA	00:		7.649	202.715	100.658	51.382	354.755	57.166	411.920

Line Item A02 - Inert Atmosphere - Oxygen Analyzer

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Inert Atmosphere - Oxygen Analyzer:

This LCO surveillance monitors Zone 1 inert systems and designated enclosures for fire safety involving pyrophoric plutonium. SOEs and Maintenance personnel ensure that gloveboxes that require an inert atmosphere and are used to handle in-process pyrophoric plutonium are monitored by an operable oxygen analyzer. A monthly surveillance is performed to readjust the oxygen analyzers to manufacturer's specification and to test the alarm at the 5% by volume limit.

Resources

s	Cost Element		Skill			Department			Curve	Quantity	Units
	750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 C	omplex Steelworkers		Linear	147.84	Hours
	Factors	1.2 Hours per Surveillance (Fr	om walk-	2 Electricians		14	Oxvaen Analyzers	4	Quarterly Su	rveillances	
_		1.1 10% surveillance following	failure								
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNO	OLIGI KD10H	776 C	omplex Steelworkers		Linear	24.64	Hours
	Factors	0.4 Hours per unit to perform s	urveilland	e 1 RCT		14	Oxygen Analyzer Units	4	quarterly sur	veillances	

1.1 10% surveillance following failure

Line Item A04 - Emergency Power/UPS

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Emergency Power/UPS:

This activity consists of the LCO surveillance requiring the emergency generator to be tested on a monthly basis for a minimum of one hour. The diesel generators shall be tested for automatic startup and pickup of loads required for the condition of loss of offsite electrical power. Process Specialists support vault/alarm access while the Alarm Tech resets five (5) panels. This scope is perfomed during off-shift so that facility operations do not need to be suspended for the Emergency Power testing.

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WBS No: 1DAB01 Activity ID: 1DXXXFA00

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect Baseline Devl WBS Filter 1DAB

D			ces
ĸ	esc	our	ces

_						Activity Filter	*	Starts In FY *
es		Cost Element		Skill		Department	Curve	Ouantity Units
L	750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	32.00 Hours
نے ۔	Factors	2 Electricians		4 hours per inspection		4 quarterly inspections		
L	750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	72.00 Hours
نے ۔	Factors	2 Electricians		3 hours each per month for U	PS	12 monthly inspections		
L	750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	48.00 Hours
نے ۔	Factors	2 Electricians		2 hours per month for battery		12 monthly inspections		
L	750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	16.00 Hours
نے ۔	Factors	1 annual inspection		2 Electricians		8 hours for annual battery inspection		
L	751	OVERTIME BASE & PRE.	C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	32.00 Hours
į.	Factors	2 Electricians	ı	4 Hours per Inspection (From	walk-	4 Quarterly Inspections		
L	751	OVERTIME BASE & PRE.	C100	AUTO MECHANIC	KD10H	776 Complex Steelworkers	Linear	16.00 Hours
d	Factors .	1 Mechanic	1	4 Hours per Inspection (Monit	or Diesel	4 Quarterly Inspections		
L	751	OVERTIME BASE & PRE.	T070	MAINT. TECHS. (INSTRUMENT TEC	KD10H	776 Complex Steelworkers	Linear	16.00 Hours
	Factors	 Alarm Technician 		4 Hours per Inspection (From	walk-	4 Quarterly Inspections		

Line Item A05 - Criticality Accident Alarm System

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Criticality Accident Alarm System:

This LCO surveillance is performed by RCTs and Radiological Engineering in order to ensure that a criticality alarm system (utilizing detectors and coincidence circuitry in the criticality alarm system main panel) for criticality accident detection has been installed and is operable in all areas where fissile materials are handled, stored, or processed. A monthly surveillance is performed, where each detector is tested with a source to verify that it is within an acceptable range for the specific test source. These monthly surveillances are performed on off-shifts to minimize the impact to daily facility operation (overtime).

Resources

es		Cost Element			Skill			Department	Curve	Quantity	Units
Ĺ	751	OVERTIME BASE & PRE.	M010	FOREM	EN / TEAM LEADS / GROUP	K399S	Buildin	g 776 Proiect	Linear	96.00	Hours
r	Factors	4 hours per Surveillance (Fro	m walk-	12	Monthly Surveillances	,	2	ARCIE Supervisor			
L	751	OVERTIME BASE & PRE.	M010	FOREM	EN / TEAM LEADS / GROUP	K399S	Buildin	a 776 Proiect	Linear	48.00	Hours
	Factors	4 Hours per Surveillance (Fro	m walk-	_ 1	RCT Supervisor	I	12	Monthly Surveillances			
L	751	OVERTIME BASE & PRE.	T050	RADIAT	ION CONTROL TECHNOLIGI	KD10H	776 Cc	mplex Steelworkers	Linear	480.00	Hours
	Factors	4 Hours per Surveillance (Fro	m walk-	10	RCTs	I	12	Monthly Surveillances		1	
Ĺ	751	OVERTIME BASE & PRE.	T060	D&D HA	Z REDUC TECH / RISK RED	KD10H	776 Cc	mplex Steelworkers	Linear	144.00	Hours
г	Factors	4 hours per monthly Surveilla	nce ever	t 3	Process Specialist		12	months		T	
L	751	OVERTIME BASE & PRE.	T070	MAINT.	TECHS. (INSTRUMENT TEC	KD10H	776 Cc	mplex Steelworkers	Linear	432.00	Hours
	Factors	9 Hours per surveillance (Fro	m walk-	4	ARCIE Technologists (alarm	techs)	12	Monthly Surveillances			

Line Item A06 - Fire Detection/Fire Suppression

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Fire Detection/Fire Suppression:

This LCO surveillance ensures the operability of the Fire Detection System and the Fire Suppression System. A visual inspection of the fire detection system is performed on a monthly basis. A quarterly surveillance includes local audible alarms, panel operation, alarm test to the Central Alarm Station, and vault heat detection system and plenum heat detectors. Also included is Glovebox overheat testing.

Resources

s			Cost Element			Skill		Department	Curve	Ouantity	Units
	750	STRAIGH	IT TIME BASE	T050	RADIATION	ON CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	60.00 ⊢	lours
Fc	ictors	5	Hours per week		12	GB O/H Tests per vear		1 RCT			
	750	STRAIGH	IT TIME BASE	T060	D&D HAZ	REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	120.00 H	lours
Fc	ictors	5	Hours per Test		12	GB O/H Tests per vear		2 Process Specialist			
L	A5H	SUBCON	TRACTED SRVS	E120	SAFETY	ENGINEERS	K263S	Fire Tactical Operations	Linear	136.000.00	ollars

Factors 1 refer to letter Brad Smeaton to Mike 136000 dollars lump sum 1 Letter number BES-081-98

Line Item A07 - Criticality Safety Operations

BOE Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item

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WBS No: 1DAB01 Activity ID: 1DXXXFA00

Rocky Flats Closure Project **Baseline Cost and Basis of Estimate**

Proiect Baseline Devl WBS Filter Activity Filter

1DAB

level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O.

Item Desc - Criticality Safety Operations:

Criticality Safety Inspections are required monthly for JH98/NSP-10; quarterly per 5B02 and annually.

Resources

es		Cost Element			Skill			Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	T060	D&D HAZ	REDUC TECH / RISK RED	KD10H	776 Co	mplex Steelworkers	Linear	432.00	Hours
r	Factors	1 Process Specialists		12	Monthly Surveillances		36	hours per Surveillance (JH98/NSP-			
	750	STRAIGHT TIME BASE	T060	D&D HAZ	REDUC TECH / RISK RED	KD10H	776 Co	mplex Steelworkers	Linear	216.00	Hours
r	Factors	2 Process Specialists		4	Quarterly Surveillances		27	Hours per quarterly surveillance			
	750	STRAIGHT TIME BASE	T060	D&D HAZ	REDUC TECH / RISK RED	KD10H	776 Co	mplex Steelworkers	Linear	40.00	Hours
r	Factors	40 hours per annual surveilland	e	1	Process Specialist						
Į	A5H	SUBCONTRACTED SRVS	0000	NONE		K399S	Building	776 Proiect	Linear	17.000.00	Dollars
	Factors	5 Inspectors		40	Hours		85	\$/Hour			

Line Item A08 - OSR Compensatory Measures

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - OSR Compensatory Measures:

Compensatory measures are invoked in response to Limited Conditions of Operations out-of-tolerance conditions or violation of Operational Safety Requirements (OSR) in the building, and have historically been fire watches for such conditions as out-of-compliance HSP31.11 Material or Heat Detector Deficiencies. The scope is for off-shift fire watch.

Assume 34 days of the year will require 24-hour roving fire watches in FY-99 under OSR Compensatory Measures.

Resourc

rces		Cost Element		Skill		Department	Curve	<i>Ouantity</i>	Units
	751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	3.264.00	Hours

Process Specialists hours per month for roving fire watch 34 Factors 4 davs per vear under OSR

Line Item A09 - LCO Coordinator

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - LCO Coordinator:

The LCO Coordinator performs tracking and trending of LCO, ACs and Unreviewed Safety Questions (USQ) surveillance data; produces notification letters to organizations responsible for performing LCO surveillances; advises such organizations of due/past due surveillances; and maintains LCO files and documentation. This individual also attends shift turnover meetings and plan of the day/week meetings as needed in support of the LCO program; maintains and updates Shift Managers manuals; and updates the Vital Safety Systems (VSS) Status Board.

Resources

es		Cost Element	Skill	Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	P170 OTHER ADMINISTRATIVE & PROFE	R100S RMRS Salaried	Linear	936.00	Hours

Factors 4 Hours per day davs

Line Item A10 - Routine Radiological Surveys

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Routine Radiological Surveys:

Routine Radiological Surveys (i.e., pre-job, weekly, monthly, quarterly, semi-annual, etc.) are performed per the Site radiological Control Manual in order to ensure the safety of personnel, the facility, and the environment. The surveys include gamma-neutron, contamination control, baseline and ALARA exposure, glovebox, and/or room surveys.

es		Cost Element			Skill			Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	T050	RADIATI	ION CONTROL TECHNOLIGI	KD10H	776 Com	nplex Steelworkers	Linear	30.00	Hours
I	actors	2 Surveys per Year		3	Hours per set Survey (From	walk-	5	Tank Sets			
	750	STRAIGHT TIME BASE	T050	RADIATI	ION CONTROL TECHNOLIGI	KD10H	776 Com	nplex Steelworkers	Linear	36.00	Hours
I	actors	 Source Inventories and Lea 	ak Testino	n 1	RCTs		18	Hours per Survey			

WBS No: 1DAB01 Proiect Baseline Devl **Rocky Flats Closure Project** Activity ID: 1DXXXFA00 WBS Filter 1DAB **Baseline Cost and Basis of Estimate**

							Activity Filter	*	Starts In FY *
750 STRAIGHT TIME BASE	T050	RADIATION CO	NTROL TECHNOLIGI	KD10H	776 C	omplex Steelworkers		Linear	2.600.00 Hours
Factors 2 Hours per survey (From wa	lk-down)		eklv Survevs	1	52	Weeks per vear			
750 STRAIGHT TIME BASE	T050	RADIATION CO	NTROL TECHNOLIGI	KD10H	776 Cd	omplex Steelworkers		Linear	912.00 Hours
Factors 2 Hours per Survey (From w	alk-down)	12Mon	iths		38	Monthly Surveys			
750 STRAIGHT TIME BASE	T050	RADIATION CO	NTROL TECHNOLIGI	KD10H	776 Cd	omplex Steelworkers		Linear	920.00 Hours
Factors 2 Survey events per year		2.5 Hou	rs per survev (From wal	k-down)	184	Glovebox Survevs			
751 OVERTIME BASE & PRE.	T050	RADIATION CO	NTROL TECHNOLIGI	KD10H	776 Cd	omplex Steelworkers		Linear	455.80 Hours

0.1 10% Overtime 4558 RCT hours ST for Routine Factors

Line Item SYS - Contingency And Escalation

BOE

Resources

s	Cost Element		Skill	<u>Department</u>	Curve	Quantity	Units	
	CON CONTINGENCY	0000	NONE	ZDEPT No Department	Linear	16.764.38	Dollars	
	Factors 16764.4 Dollars							
	ESC ESCALATION	0000	NONE	ZDEPT No Department	Linear	34.617.55	Dollars	

34617.6 Dollars

Activity ID: 1DXXXEM00 Description: End of B776/777 Compliance Surv- Other Cost Risk 2 Schedule Risk

Activity ID. IDAAA Pillot Description. End of B170/111 Compilance Surv-Other												
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	0 2	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
M01	Fire Inspections	0.66	ea	HC	356	234	6.751	0	0	6.751	1.904	8.655
M02	SAAM/CAM Surveillance	0.66	ea	HC	1.287	847	18.528	0	0	18.528	5.225	23.753
M03	Hood Encl./Portable Down Draft Face Velocity Surv.	0.66	ea	HC	297	195	4.256	0	0	4.256	1.200	5.456
M04	Airhead Survevs/Change Filter Media	0.66	ea	HC	1.495	984	21.636	0	0	21.636	6.101	27.737
M05	Annual Smoke Test	0.66	ea	HC	572	376	12.511	0	0	12.511	3.528	16.039
M06	Evewash/Safetv Shower	0.66	ea	HC	90	59	1.211	0	0	1.211	342	1.553
M07	Safetv/Inspections	0.66	ea	HC	0	0	0	24.921	0	24.921	0	24.921
M10	NDA Gamma Scans	1.32	ea	HC	292	384	8.533	0	0	8.533	2.406	10.940
M11	DOP Filter Surveillance	0.66	ea	HC	540	355	7.778	0	0	7.778	2.193	9.971
SYS	Contingency And Escalation	1.00	ea	EE	0	0	0	0	18.388	18.388	0	18.388
	•	Total for Activi	ty 1DXXXFM	00:		3.435	81.205	24.921	18.388	124.514	22.900	147.413

Line Item M01 - Fire Inspections

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity consists of Fire Inspections of the Flammable Cabinets (21 each), Fire Extinguisher Inspections (164) and monthly combustible loading inspections per PRO-035-FI-776/777.

Resources

es		Cost Element		Skill		Department	Curve	Ouantity	Units
L	750 STF	RAIGHT TIME BASE	E130	OTHER ENGINEERS	R100S	RMRS Salaried	Linear	216.00	Hours
	Factors 1	1 Engineer		12 monthly inspections		18 hours per month combustible loading	na		
Į	750 STF	RAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	42.00	Hours
r	Factors C	0.25 hours per cabinet for month	lv	12 months		14 Flammable Cabinets			
L	750 STF	RAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	98.40	Hours
	Factors C	0.05 hours per monthly Inspection	n per	12 months		164 Fire Extinguishers			

Line Item M02 - SAAM/CAM Surveillance

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity consists of the LCO Surveillance required to verify the rooms listed in the OSR are covered by an operable Selective Alpha Air Monitor (SAAM) system. This system is used to detect the presence of airborne radioactivity above the alarm point setting of the instrument and to activate an alarm to warn personnel in the area to minimize personnel exposure. A twice-weekly surveillance is performed to visually check operating area SAAMs and recirculation air plenum SAAMs for proper settings and air flow of >.8 cubic feet per minute (cfm) and <3 cfm. Also visually check the operating effluent SAAM for proper SAAM settings and airflow of <2 cfm and <3cfm. Per ROI 4.05, Rev. 1.

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WBS No: 1DAB01 Activity ID: 1DXXXFM00

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter Baseline Devl

Starts In FY

Filter 1DAB

RCTs surveilling 90 SAAM/CAAM units twice per week. During the surveillance, the filter papers are changed.

Resources

es		Cost Element		Skill		Department		Curve	<i>Ouantity</i>	Units
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers		Linear	1.170.00	Hours
	Factors	0.125 hours per surveillance		2 Surveillances per week		52 weeks	90	SAAM/CAM	Units	
	751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers		Linear	117.00	Hours

Factors 0.1 10% overtime per week (based on 1 RCT 1170 hours straight time CAM/SAAM

Line Item M03 - Hood Encl./Portable Down Draft Face Velocity Surv.

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity consists of the LCO Surveillance of the minimum face velocity on Zone 1A enclosures (gloveboxes, hoods and downdraft tables). A monthly surveillance is performed by Radiologica Control Technicians (RCTs) to either verify the enclosure minimum average face velocity >150 fpm or document that any loose surface alpha contamination is <200 dpm/100 cm2 in each Zone 1A enclosure. Operability of Zones 1 1A, and II ventilation systems is needed to maintain negative pressure and to mitigate the release of radioactive materials to the environment. Process Specialists open and close hoods and b-boxes for the RCTs.

Resources

:S		Cost Element		Skill			Department	Curve	Ouantity Units
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Co	mplex Steelworkers	Linear	90.00 Hours
	Factors	0.5 hours per hood surveillance	(From	12 months		15	hood surveillances per month		
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Co	mplex Steelworkers	Linear	90.00 Hours
	Factors	0.5 hours per survey (From wal	k-down)	12 months		15	Portable Downdraft Surveillances per		
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Co	mplex Steelworkers	Linear	90.00 Hours
	Factors	0.5 hours per hood to survey (F	rom wal	k- 12 months		15	monthly hood surveillances		
	751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Co	mplex Steelworkers	Linear	18.00 Hours
	Factors	0.1 10% overtime		1 RCT		180	hours per vear hood/enclosure		
	751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Co	mplex Steelworkers	Linear	9.00 Hours
	P	0.4 4.00/ according a		OO OT hours process enskielis					

Factors 0.1 10% overtime 90 ST hours process specialist

Line Item M04 - Airhead Surveys/Change Filter Media

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Inspect and maintain the permanently installed air monitoring system. RCTs perform airhead surveillances.

Resources

s	Cost Element			Skill					Department	Curve	Quantity	Units
	750	STRAIGH1	TIME BASE	T050	RADIATION	ON CONTROL TECHNOLIC	KD10H	776 Con	nplex Steelworkers	Linear	1.206.40	Hours
	Factors	0.08	hours per unit to change (F	rom walk	- 2	changes per week		52	weeks	145 Filter Media	Units	
	750	STRAIGH1	TIME BASE	T050	RADIATION	ON CONTROL TECHNOLIC	KD10H	776 Con	nplex Steelworkers	Linear	138.60	Hours
	Factors	0.07	hours per unit calibration per	er month	12	months		165	Airhead Units requiring calibration			
	751	OVERTIME	E BASE & PRE.	T050	RADIATION	ON CONTROL TECHNOLIC	KD10H	776 Con	nplex Steelworkers	Linear	134.50	Hours
	Factors	0.1	10% overtime		1345	ST hours RCT support ai	head					
	751	OVERTIME	E BASE & PRE.	T060	D&D HAZ	REDUC TECH / RISK RE	KD10H	776 Con	nplex Steelworkers	Linear	15.60	Hours
	Fastore	0.1	10% avartima		156	hours process specialist	T filtor					

Line Item M05 - Annual Smoke Test

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - This activity consists of RCTs performing tri-annual (not required in FY-99 but is required in FY-00) air flow pattern testing on 90 SAAM/CAM units annually. During this surveillance, special air flow conditions may need to be established (ie. roll-up doors open and/or shut, ventilation systems at reduced flows, etc.) and tested. These tests are performed off-shift to minimize impacts to facility operations.

es			Cost Element		Skill		Department	Curve	Ouantity	Units
	751	OVERTIN	ME BASE & PRE.	M010	FOREMEN / TEAM LEADS / GROUP	R100S	RMRS Salaried	Linear	16.00	Hours
F	actors	16	Hours Foreman time to sup	ervise						

Rocky Flats Closure Proiect Proiect Baseline Devl Baseline Cost and Basis of Estimate Baseline Devl 1DAB

751 OVERTIME BASE & PRE. T050 RADIATION CONTROL TECHNOLIGI KD10H 776 Complex Steelworkers Linear 556.00 Hours

Factors 556 hours RCT time to inspect placement

Line Item M06 - Eyewash/Safety Shower

1DAB01

1DXXXFM00

BOE

WBS No:

Activity ID:

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Safety Showers and Eyewash Surveillances ensure that DOE, ANZI, and other requirements are met. Safety Showers and Eyewash Stations are flow tested monthly. A checklist is completed and submitted to the Building Manager for approval. Appropriate documentation is kept on file.

Resources

s Cost Element Skill Department Curve Quantity Units
750 STRAIGHT TIME BASE T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers Linear 90.00Hours

Factors 0.25 hours to inspect per month (From 12 months 30 Eye wash stations

Line Item M07 - Safety/Inspections

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Safety/Housekeeping Inspections consists of various activities that protect building personnel.

Resources

es		Cost Element		Skill		Department	Curve	Ouantity	Units
	A5H	SUBCONTRACTED SRVS	E020	CIVIL ENGINEERS	K399S	Building 776 Project	Linear	37.880.00	Dollars
	_			07000 B II					

Factors 1 Lump Sum 37880 Dollars

Line Item M10 - NDA Gamma Scans

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - NDA Gamma Scans are required to determine the Pu gram quantity in fissile solution tanks (2 each).

Resources

es		(Cost Element	Skill			Department			Curve	Quantity	Units
	750	STRAIGH	T TIME BASE	T070	MAINT.	TECHS. (INSTRUMENT TEC	KD10H	776 Co	omplex Steelworkers	Linear	40.00	Hours
	Factors	1	Annual test		5	Tanks requiring NDA Scans	i	8	hours per NDA Scan			
	750	STRAIGH	T TIME BASE	T070	MAINT.	TECHS. (INSTRUMENT TEC	KD10H	776 Co	omplex Steelworkers	Linear	252.00	Hours
	Factors	18	Hours per Scan		7	Plenums		2	NDA Testing Techs			

Line Item M11 - DOP Filter Surveillance

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - DOP Filter Surveillances are required to determine if plenum filters are operating as designed.

Resources

es	Cost Element	Skill	Department	Curve	Quantity Units
	750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	324.00 Hours
	Factors 4 RCTs at each plenum	9 plenums	9 hours each plenum		
	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	162.00 Hours
	Factors 2 HRTs at each plenum	9 plenums	9 hours each plenum		
	751 OVERTIME BASE & PRE.	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	36.00 Hours
	Factors 4 RCTs at each plenum	1 Primary plenum	9 hours each plenum		
	751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	18.00 Hours
	Form 2 LIDTs at each planum	1 Drimon, planum	O haura aaah mlanum		

Factors 2 HRTs at each plenum 1 Primary plenum 9 hours each plenum

Line Item SYS - Contingency And Escalation

BOE

Resources	Cost Element	Skill	Department	Curve	Quantity Units
	CON CONTINGENCY	0000 NONE	ZDEPT No Department	Linear	5,999.45 Dollars
	Factors 5999.45 Dollars				

WBS No: 1DAB01 Rockv Flats Closure Project Project Baseline Devl
Activity ID: 1DXXXFM00 Baseline Cost and Basis of Estimate 1DAB

ESC ESCALATION 0000 NONE ZDEPT No Department Linear 12.388.54 Dollars

Factors 12388.5 Dollars

Activity ID: 1DX	XXXFE00 Description: End of B776/777 Compliance	e Surv- Env	rironmental/				Cost Risk 2 Schedule Risk 3					
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
	•			Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
E01	RCRA Inspections	0.66	ea	HC	1.902	1.251	29.832	0	0	29.832	8.413	38.244
E02	Organic Air Emission Surveillance	0.66	each	HC	108	71	1.454	0	0	1.454	410	1.864
SYS	Contingency And Escalation	1.00	ea	EE	0	0	0	0	5.716	5.716	0	5.716
	FE00:		1.322	31.286	0	5.716	37.002	8.823	45.824			

Line Item E01 - RCRA Inspections

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - RCRA Inspections for B776/777 include daily inspections of tank systems including process waste tanks (Process Waste Tanks, Tank T1 and T2, SR3, SR4, and SR5, T344, T345, T360, T370 and the FBI Pilot Tanks); Monthly and Annual organic inspection of vacuum accumulators; and weekly inspections of 776.1 and 777.1 Units. The subcontracted support contains 776.1 and 777.1 RCRA Unit Inspections, WEMS Management support, container management and regulatory interface and support from the WEMS Coordinator.

Resources

es		Cost Element			Skill			Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	T060	D&D HAZ	Z REDUC TECH / RISK RED	KD10H	776 Cd	emplex Steelworkers	Linear	702.00	Hours
-	Factors	1 Process Specialist		234	AWS Daily Inspections for T	anks	3	hours per day (From walk-down)			
	750	STRAIGHT TIME BASE	T060	D&D HA	Z REDUC TECH / RISK RED	KD10H	776 Cd	emplex Steelworkers	Linear	52.00	Hours
	Factors	1 Hour per week to inspect th	<u>e 90 dav</u>	. 1	Process Specialist		52	weeks			
	750	STRAIGHT TIME BASE	T060	D&D HA	Z REDUC TECH / RISK RED	KD10H	776 Cd	emplex Steelworkers	Linear	624.00	Hours
	Factors	12 hours per inspection		52	weeks		1	Perform weekly inspections			
	751	OVERTIME BASE & PRE.	T060	D&D HA	Z REDUC TECH / RISK RED	KD10H	776 Cd	emplex Steelworkers	Linear	524.00	Hours
	F	1 Droopes Cresislist		101	ANAC Eridova and washing de		4	Haura nor day (Fram wall, days)			

Factors 1 Process Specialist 131 AWS Fridays and weekends 4 Hours per day (From walk-down)

Line Item E02 - Organic Air Emission Surveillance

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O.

Item Desc - Organic Air Emission Surveillance

Resources

es		Cost Element		Skill				Department		Curve Ouantity				
	750	STRAIG	HT TIME BASE	T060	D&D H/	AZ REDUC TECH / RISK RED	KD10H	776 Cor	nplex Steelworkers		Linear	108.0	0 Hours	
	Factors	1	Surveillance/Month		٥	Hours		12	Months	1	Drococc Sno	ocialist		

Line Item SYS - Contingency And Escalation

BOE

Resources

es		Cost Element		Skill		Department	Curve	Ouantity	Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	1.864.95	Dollars
	Factors	1864.96 Dollars							
	ESC	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	3,851.03	Dollars

Factors 3851.03 Dollars

WBS No: 1DABO	<u>Title:</u> B776 Maintenance											
Activity ID: 1DF0	Description: B776/777 Landlord - Correct	ive Mainter	nance FY-00					Cost Risk	2 Schedule R	Pisk 3		
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
	Zene nem			Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
C01	1 Modification Packages (LSDW,701Vent, SRV)			HC	1,675	5,026	105,167	146,132	0	251,299	63,590	314,889
C02				HC	38	1,364	29,562	17,871	0	47,433	14,426	61,859
C03	Level of Effort Packages	40.00	LOE Pkas	HC	12	477	9.904	2.696	0	12.600	4.833	17.433
C04	IWCP Pkgs (Davis Bacon 430AL, Breath Air, 701, Co)			HC	96	480	11.275	210.000	0	221.275	5.502	226.778
C05	Maintenance Infrastructure			HC	1.950	1.950	51.161	18.060	0	69.221	24.967	94.188
	Tot	al for Activi	ty 1DF02000	:01:		9.297	207.068	394.759	0	601.828	113.318	715.146

WBS No: 1DAB02 Activity ID: 1DF0200C01

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect Baseline Devl WBS Filter 1DAB Activity Filter *

Starts In FY *

Line Item C01 - Modification Packages (LSDW,701Vent, SRV)

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Repairs to VSS/Non-VSS systems that cannot be accomplished using a standard work package (SWP). This work requires engineering review, for example: Work requiring a breech of Zone 1 containment.

Resources

s		Cost Element		Skill		Department	Curve	Ouantity Units
	750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	43.20 Hours
F_{ℓ}	actors	36 Hours		1.2 20% forJHA and walkdowns			1	
	750	STRAIGHT TIME BASE	C120	D&D SKILLED TRADES	K777C	Construction	Linear	1.440.00 Hours
F_{ℓ}	actors	1440 Hours 8 D&D workers. 1 for	eman @)	I		1	
	750	STRAIGHT TIME BASE	E050	ENVIRONMENTAL ENGINEERS	R100S	RMRS Salaried	Linear	0.60 Hours
Fc	actors	0.5 Hours		1.2 20% forJHA and walkdowns			1	
	750	STRAIGHT TIME BASE	P090	INDUSTRIAL HYGIENISTS	R100S	RMRS Salaried	Linear	12.00 Hours
Fc	actors	10 Hours		1.2 20% forJHA and walkdowns			Tr.	
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	48.00 Hours
Fa	actors	40 Hours		1.2 20% forJHA and walkdowns			Tr.	
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	43.20 Hours
Fc	actors	36 Hours		1.2 20% forJHA and walkdowns			-	
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	21.60 Hours
Fc	actors	18 Hours		1.2 20% forJHA and walkdowns			-	
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	21.60 Hours
Fe	actors	18 Hours		1.2 20% forJHA and walkdowns				
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	21.60 Hours
Fe	actors	18 Hours		1.2 20% forJHA and walkdowns				
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	10.80 Hours
Fc	actors	9 Hours		1.2 20% forJHA and walkdowns	i			
	751	OVERTIME BASE & PRE.	C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	2.59 Hours
Fc	actors	2.16 Hours		1.2 20% forJHA and walkdowns				
	751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	2.88 Hours
Fc	actors	2.4 Hours		1.2 20% forJHA and walkdowns	1			
	751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	1.30 Hours
Fc	actors	1.08 Hours		1.2 20% forJHA and walkdowns				
	751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	2.59 Hours
Fc	actors	2.16 Hours		1.2 20% forJHA and walkdowns	i			
	751	OVERTIME BASE & PRE.	T060			776 Complex Steelworkers	Linear	0.67 Hours
Fc	actors	0.56 Hours		1.2 20% forJHA and walkdowns	i			
	751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	1.30 Hours
Fc	actors	1.08 Hours		1.2 20% forJHA and walkdowns	i			
	751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	1.30 Hours
Fe	actors	1.08 Hours		1.2 20% forJHA and walkdowns	1			_
	A57	LATA	E110	QUALITY CONTROL ENGINEERS		Building 776 Project	Linear	576.00 Dollars
Fe	actors	480 Dollars				1.2 20% for JHA and WD		_
	A57	LATA	P070	COST ESTIMATORS PLANNERS AN	K399S		Linear	3.052.80 Dollars
	actors	2544 Dollars				1.2 20% forJHA and walkdowns	<u> </u>	
	A5C	SUPPLIES	0000	NONE	K399S	Building 776 Project	Linear	2.082.00 Dollars
	actors	2082 Dollars					<u> </u>	
		SUPPLIES	0000	NONE	K777S	Construction I	Linear	43.000.00 Dollars
-		40000 D.II I.						

Factors 43000 Dollars material supplies each of

Line Item C02 - SWP Packages

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

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WBS No: 1DAB02 Activity ID: 1DF0200C01

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect
WBS Filter
Activity Filter

Baseline Devl 1DAB

Starts In FY

Item Description: Standard Work Packages (SWPs) are pre-approved IWCP work packages used for trouble-shooting and repair of VSS/Non-VSS systems and components that meet the requirements of NSM 4.03. Engineering support is required for SWPs.

Resources

es		Cost Element		Skill		1	Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Com	olex Steelworkers	Linear	9.10 H	lours
í	Factors	21 Hours		1.2 20% forJHA and walkdowns		0.3612	82/227 Davs Remaining			
	750	STRAIGHT TIME BASE	E050	ENVIRONMENTAL ENGINEERS	R100S	RMRS Sa	alaried	Linear	0.22	Hours
	Factors	0.5 Hours		1.2 20% forJHA and walkdowns		0.3612	82/227 Davs Remaining			
	750	STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	C210S	Facilities	Mamt & Maintenance	Linear	0.87 H	Hours
i	Factors	2 Hours		1.2 20% forJHA and walkdowns		0.3612	82/227 Davs Remaining			
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Com	olex Steelworkers	Linear	3.90 H	Hours
ĺ	Factors	9 Hours		1.2 20% forJHA and walkdowns			82/227 Davs Remaining			
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Com	plex Steelworkers	Linear	4.33 H	Hours
ĺ	Factors	10 Hours		1.2 20% forJHA and walkdowns			82/227 Davs Remaining			
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Com	plex Steelworkers	Linear	4.33 h	Hours
ĺ	Factors	10 Hours		1.2 20% forJHA and walkdowns			82/227 Davs Remaining			
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Com	plex Steelworkers	Linear	9.10 h	Hours
ĺ	Factors	21 Hours		1.2 20% forJHA and walkdowns			82/227 Davs Remaining			
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Com	plex Steelworkers	Linear	3.90 H	Hours
ĺ	Factors	9 Hours		1.2 20% forJHA and walkdowns			82/227 Davs Remaining			
	751	OVERTIME BASE & PRE.	C020	ELECTRICIANS	KD10H	776 Com	plex Steelworkers	Linear	0.55 H	Hours
ĺ	Factors	1.26 Hours		1.2 20% forJHA and walkdowns			82/227 Davs Remaining			
	751	OVERTIME BASE & PRE.	P170	OTHER ADMINISTRATIVE & PROFE	C210S	Facilities	Mamt & Maintenance	Linear	0.05	Hours
ĺ	Factors	0.12 Hours		1.2 20% forJHA and walkdowns			82/227 Davs Remaining			
	751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Com	plex Steelworkers	Linear	0.23 H	Hours
ĺ	Factors	0.54 Hours		1.2 20% forJHA and walkdowns			82/227 Davs Remaining			
	751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Com	plex Steelworkers	Linear	0.26 H	Hours
	Factors	0.6 Hours		1.2 20% forJHA and walkdowns		0.3612	82/227 Davs Remaining	TI TI		
	751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Com	plex Steelworkers	Linear	0.26 H	Hours
ĺ	Factors	0.6 hour OT per package	1	1.2 20% forJHA and walkdowns		0.3612	82/227 Davs Remaining			
	751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H		plex Steelworkers	Linear	0.55 H	Hours
	Factors	1.26 Hours		1.2 20% forJHA and walkdowns		0.3612	82/227 Davs Remaining	TI TI		
	751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Com	plex Steelworkers	Linear	0.23 H	Hours
ĺ	Factors	0.54 Hours		1.2 20% forJHA and walkdowns			82/227 Davs Remaining			
	A57	LATA	P070	COST ESTIMATORS PLANNERS AN	K399S	Buildina 7	776 Proiect	Linear	15.60	Dollars
1	Factors	36 Dollars		T	ı	1.2	20% forJHA and walkdowns	0.3612 82/227 Davs		
	A57	LATA	P070	COST ESTIMATORS PLANNERS AN	K399S	Buildina 7	776 Proiect	Linear	259.75	Dollars
ı	Factors	599.283 Dollars				1.2	20% forJHA and walkdowns	0.3612 82/227 Davs		
	A5C	SUPPLIES	0000	NONE	K399S		776 Proiect	Linear	221.05	Oollars
	Factors	510 dollars				1.2	20% forJHA and walkdowns	0.3612 82/227 Days	Remaining	

Line Item C03 - Level of Effort Packages

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Description - LOE Packages are used for repairs to VSS/Non-VSS systems using "skill of the craft" and "like for like" materials, but do not meet the criteria of the IWCP definition of "minor maintenance". Packages are reviewed and approved by the appropriate disciplines per the requirements of IWCP and no engineering or modifications to the equipment are required. Example (VSS fan belt change)

s		Cost Element		Skill		Department	Curve	Ouantity Un	iits
	750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	3.12 Hour	'S
	Factors	7.2 Hours		1.2 20% forJHA and walkdow	ns	0.3612 82/227 Davs Remaining			
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIG	KD10H	776 Complex Steelworkers	Linear	0.22 Hour	'S
	Factors	0.5 Hours		1.2 20% forJHA and walkdow	าร	0.3612 82/227 Davs Remaining			

WBS No: 1DAB02 Rockv Flats Closure Proiect
Activity ID: 1DF0200C01 Baseline Cost and Basis of Estimate

Proiect Baseline Devl WBS Filter 1DAB

	Activity Filter	*	Starts In FY *
750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers	Linear	1.56 Hours
Factors 3.6 Hours	1.2 20% forJHA and walkdowns 0.3612 82/227 Davs Remaining		
750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers	Linear	1.56 Hours
Factors 3.6 Hours	1.2 20% forJHA and walkdowns 0.3612 82/227 Davs Remaining		
750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers	Linear	1.56 Hours
Factors 3.6 Hours	1.2 20% forJHA and walkdowns 0.3612 82/227 Davs Remaining		
750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers	Linear	3.12 Hours
Factors 7.2 Hours	1.2 20% forJHA and walkdowns 0.3612 82/227 Davs Remaining		
750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers	Linear	0.78 Hours
Factors 1.8 Hours	1.2 20% forJHA and walkdowns 0.3612 82/227 Davs Remaining		
A5C SUPPLIES	0000 NONE K399S Building 776 Project	Linear	67.40 Dollars
Factors 155.5 Dollars	1.2 20% forJHA and walkdowns	0.3612 82/227 Day	s Remaining

Line Item C04 - IWCP Pkgs (Davis Bacon 430AL, Breath Air, 701, Co)

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - IWCP Packages covered under Davis Bacon criteria.

Resources

es	Cost Element			Skill				Department			Curve	Ouantity	Units
	750	STRAIGH	TTIME BASE	P170	OTHER A	DMINISTRATI	VE & PROFE	R100S	RMRS S	Salaried	Linear	48.00	Hours
1	Factors	40	hours per package		1.2	20% forJHA	and walkdowns						
L	750	STRAIGH	TTIME BASE	T050	RADIATIO	ON CONTROL	TECHNOLIGI	KD10H	776 Con	nplex Steelworkers	Linear	48.00	Hours
1	Factors	40	Hours		1.2	20% forJHA	and walkdowns						
L	A5C	SUPPLIES	}	0000	NONE			K399S	Buildina	776 Proiect	Linear	6.000.00	Dollars
1	Factors	5000	Dollars in supplies for each	DB IWC	P				1.2	20% forJHA and walkdowns			
L	A5H	SUBCONT	RACTED SRVS	0000	NONE			K399S	Buildina	776 Proiect	Linear	36.000.00	Dollars
1	Factors	30000	dollars						1.2	20% forJHA and walkdowns			

Line Item C05 - Maintenance Infrastructure

Factors 50000 Dollars

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Summary Document - Rev 0.

Item Desc - Maintenance Infrastructure comprises management and oversight scope that can not reasonably or effectively be allocated to specific maintenance packages.

Resources

es	Cost Element		Skill		Department	Curve	Ouantity Units
750	STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	R100S	RMRS Salaried	Linear	1.300.32 Hours
Factor	2 Pflipsen, Knapp		1800 Hours		0.3612 82/227 Davs Remaining		
750	STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	R100S	RMRS Salaried	Linear	650.16 Hours
Factor	1 Senior specialist - Vanzant		1800 Hours		0.3612 82/227 Davs Remaining		
A5C	SUPPLIES	0000	NONE	K399S	Building 776 Project	Linear	18.060.00 Dollars

0.3612 82/227 Davs Remaining

Activity ID: 1DF0200P01 Description: B776/777 Landlord - Preventative Maint FY-00 Cost Risk 2 Schedule Risk

Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub		Total Prime	Burden Cost	Total Cost
		.		Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
P01	PMO's Carpenter Support	192.00	PMO	HC	1	139	2.838	0	0	2.838	1.385	4.223
P01A	PMO's Electrician Support	360.00	PMO	HC	1	260	5.625	0	0	5.625	2.745	8.370
P01B	PMO's Machinist Support	520.00	PMO	HC	1	376	7.686	0	0	7.686	3.751	11.436
P01C	PMO's SSOC Pipefitter Support	50.00	PMO	HC	3	163	3.326	0	0	3.326	1.623	4.948
P01D	PMO's Alarms Support	100.00	PMO	HC	3	325	7.031	0	0	7.031	3.431	10.463
P01E	PMO's Site Services Pipefitter Support	9.00	PMO	HC	6	52	1.064	0	0	1.064	519	1.584
P01G	Supplies	1.00	each	HC	0	0	0	3.905	0	3.905	0	3.905
P02A	UPS / Elevator Maintenance	1.00	ea	VQ	23	23	500	3.215	0	3.715	244	3.959
P02B	Maintenance Services	1.00	each	HC	0	0	0	7.448	0	7.448	0	7.448

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Rocky Flats Closure Project Project Baseline Devl

Starts In FY *

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Activity ID:	1DF0200P01		Baseline C	`net an	d Basis of Estim	ato	WB	S Filter 1	DAB	
			Daseille C	ost an	u basis oi Estiii	ale	Acti	ivity Filter *		
D02C	Pofrigoration	12.0	0 oach	٦	6	60	1 /110		0	0

P02C	Refrigeration	12.00 each	HC	6	69	1.419	0	0	1.419	692	2.111
P03	Calibrations	1.00 ea	HC	675	675	16.270	0	0	16.270	7.940	24.210
·	·	Total for Activity 1DF02	00P01:		2.082	45.759	14.567	0	60.326	22.330	82.657

Line Item P01 - PMO's Carpenter Support

1DAB02

BOE

WBS No:

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Carpenter Support for Preventative Maintenance Orders (e.g., Perform routine inspections of 16 hoists/rigging monthly and annually - which serves as a monthly.)

Resources

ources		Cost Element		Skill		Department	Cury	ve	Ouantity	Units	ı
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Line	ar	0.72	Hours	ı

Factors 2 Hours/ea 0.3612 82/227 Days remaining

Line Item P01A - PMO's Electrician Support

ROF

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Electrician Support for Preventative Maintenance Orders (e.g., Perform routine, monthly inspections of emergency lighting, batteries, fork truck, fork truck batteries & outside lighting).

Resources

2S		Cost Element		Skill		Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	0.72	Hours

Factors 2 Hours/ea 0.3612 82/227 Days remaining

Line Item P01B - PMO's Machinist Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Machinist Support for Preventative Maintenance Orders (e.g., Perform routine, monthly inspections of HVAC equipment, fan belt inspections and vibration analysis.)

Resources

es	Cost Element		Skill		Department	Curve	Quantity	Units
	750 STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	0.72	Hours

Factors 2 Hours/ea 0.3612 82/227 Days remaining

Line Item P01C - PMO's SSOC Pipefitter Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Pipefitter Support for Preventative Maintenance Orders (e.g., Perform routine quarterly and annual inspections of Anti freeze loops (8), and annual fire suppression systems (8).)

Resources

ces	Cost Element		Skill			Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	3.25	Hours

Factors 9 Hours/ea 0.3612 82/227 Days remaining

Line Item P01D - PMO's Alarms Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Alarms Support for Preventative Maintenance Orders (e.g., Perform routine monthly, quarterly and annual inspections of Fire panels & LSDW batteries.)

Resources

urces	Cost Element		Skill		Department		Curve	Quantity	Units	
	750	STRAIGH	IT TIME BASE	C020 EL	LECTRICIANS	KD10H	776 Complex Steelworkers	Linear	3.25 Ho	ours
	Factors	9	Hours/ea		0.3612 82/227 Days remaining					

Line Item P01E - PMO's Site Services Pipefitter Support

BOE Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item

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WBS No: 1DAB02Activity ID: 1DF0200P01

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter Baseline Devl 1DAB

Activity Filter * Starts In FY

level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Pipefitter Support for Preventative Maintenance Orders (e.g., Perform annual inspections of Backflow preventors (9).)

Resources

s		Cost Element		Skill		Department	Curve	<i>Ouantity</i>	Units
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	5.78	Hours

Factors 16 Hours/ea 0.3612 82/227 Days remaining

Line Item P01G - Supplies

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Materials & Supplies required for Preventative Maintenance Orders.

Resources

es	Cost Element		Skill		Department	Curve	Ouantity	Units
A5C	SUPPLIES	0000	NONE	K399S	Building 776 Project	Linear	3.904.57	Oollars

Factors 10810 Dollars 0.3612 82/227 Days remaining

Line Item P02A - UPS / Elevator Maintenance

BOE

Item Description: Semi-annual inspections of the B776/777 freight elevator and Uninterruptable Power Supply (UPS).

Vendor Name - Certified Elevator Co.

Vendor Ouote - 8,700 (\$5,200 elevator, \$3,500 UPS inspection)

Quote Received by - Procurement

Item being quoted - Elevator and UPS Inspections

Other Info - This contract was in place for FY-98

Availability - Other support costs are based on Estimator Judgement

Resources

es		Cost Element			Skill		Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	C020	ELECTR	CIANS	KD10H	776 Complex Steelworkers	Linear	23.12	Hours
	Factors	2 Inspections		32	Hours		0.3612 82/227 Davs remaining			
	A5C	SUPPLIES	0000	NONE		K399S	Building 776 Project	Linear	72.24	Dollars
	Factors	200 Dollars in supplies					0.3612 82/227 Davs remaining			
	A5H	SUBCONTRACTED SRVS	0000	NONE		K399S	Building 776 Project	Linear	1.878.24	Dollars
	Factors	2 Semiannual Inspection of e	levator	2600	dollars			0.3612 82/227 Davs	remaining	
	A5H	SUBCONTRACTED SRVS	0000	NONE		K399S	Building 776 Project	Linear	1,264.20	Dollars
	Factors	 Annual inspection of UPS 		3500	Dollars			0.3612 82/227 Days	remaining	

Line Item P02B - Maintenance Services

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Maintenance Services performed in support of B776/777 for inspection of chillers (performed by York International on a service contract), and air dryers and compressors (both performed by Cate Colorado Equipment Co.) Supplies are reimbursable costs to be provided by the subcontractor. They are being planned as A5C to differentiate between service costs and forecast supplies.

Resources

es	Cost Element			Skill		Department	Curve	Ouantity	Units
	A5C SUPPLIES	0000	NONE	C	210S	Facilities Momt & Maintenance	Linear	903.00	Dollars
-	Factors 2500 Dollars in supplies for all					0.3612 82/227 Davs remaining			
	A5H SUBCONTRACTED SRVS	0000	NONE	C	210S	Facilities Momt & Maintenance	Linear	3.018.19	Dollars
-	Factors 4 Air Compressors		2089	Dollars per inspection performe	ed by		0.3612 82/227 Davs	remaining	
	A5H SUBCONTRACTED SRVS	0000	NONE	C	210S	Facilities Momt & Maintenance	Linear	2.017.66	Dollars
-	Factors 2 Chillers		2793	Dollars per Chiller performed b	v York		0.3612 82/227 Davs	remaining	
	A5H SUBCONTRACTED SRVS	0000	NONE	C	210S	Facilities Momt & Maintenance	Linear	1.509.09	Dollars
	Factors 2 Air Dryers		2080	Dollars per inspection			0.3612 82/227 Dave	remaining	

Line Item P02C - Refrigeration

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

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WBS No: 1DAB02 Baseline Devl Proiect **Rocky Flats Closure Project** Activity ID: 1DF0200P01 WBS Filter 1DAB

Baseline Cost and Basis of Estimate Activity Filter Item Desc - Refrigeration Maintenance Support provided by "Ingersoll-Rand".

Units Resources Cost Element Department Curve **Ouantity** T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers 750 STRAIGHT TIME BASE Linear 5.78 Hours

Factors 0.3612 82/227 Days remaining Hours/ea

Line Item P03 - Calibrations

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Calibration Support for Preventative Maintenance Orders (Calibration of installed instrumentation and M & TE are funded in this work package to ensure an accurate indication of building conditions and for performance assurance during maintenance activities.)

Calibrations include Zone 1 Utility Loops, Magahelics on Gloveboxes, and controllers on the HVAC system and other safety related calibrations.

Resources

es	Cost Element		Skill		Department	Curve	Ouantity	Units
L	750 STRAIGHT TIME BASE	M010	FOREMEN / TEAM LEADS / GROUP	C100S	Closure Site Services	Linear	81.27	Hours
1	Factors 225 Hours		0.3612 82/227 Davs remaining					
L	750 STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	C100S	Closure Site Services	Linear	72.24	Hours
1	Factors 200 Hours		0.3612 82/227 Davs remaining					
L	750 STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	36.12	Hours
Į.	Factors 100 Hours	1	0.3612 82/227 Davs remaining		T.			
L	750 STRAIGHT TIME BASE	T070	MAINT. TECHS. (INSTRUMENT TEC	KD10H	776 Complex Steelworkers	Linear	438.86	Hours
į,	Factors 1215 Hours		0.3612 82/227 Davs remaining		Т	1	T	
L	751 OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	9.03	Hours
Į.	Factors 25 Hours		0.3612 82/227 Davs remaining		Т			
L	751 OVERTIME BASE & PRE.	T070	MAINT. TECHS. (INSTRUMENT TEC	KD10H	776 Complex Steelworkers	Linear	37.56	Hours

104 Hours 0.3612 82/227 Days remaining Description: B776/777 Landlord - Routine Maintenance FY-00

ACTIVITY ID. IDI	Description. Difficial reduine maintenance i 100											
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
M01	Replace Pressure Release Valves	5.00	Valves	HC	7	33	678	181	0	859	331	1.189
R01	Minor Maintenance Packages	1.000.00	Maint Pkgs	НС	3	2.890	61.598	22.593	0	84.191	30.060	114.251
	Tot	al for Activit	tv 1DF0200F	R01:		2.923	62.276	22.774	0	85.050	30.391	115.440

Line Item M01 - Replace Pressure Release Valves

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Pressure Release Valve Replacement -Replace all 84 existing PRV's on the plant air/instrument air system and steam system every 3 yrs (each)

Resources

s	Cost Element		Skill		Department	Curve	Quantity	Units
750	STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	C210S	Facilities Momt & Maintenance	Linear	0.09	Hours
Factors	0.25 Hours		0.3612 82/227 Days remaining					
750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	0.72	Hours
Factors	2 Hours		0.3612 82/227 Days remaining					
750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	5.78	Hours
Factors	16 Hours		0.3612 82/227 Days remaining					
A5C	SUPPLIES	0000	NONE	K399S	Building 776 Project	Linear	36.12	Dollars

In supplies per PRV 100 0.3612 82/227 Days remaining Factors

Line Item R01 - Minor Maintenance Packages

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Craft Support for the completion of Minor Maintenance activities.

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Cost Rick

2 Schedule Risk

Starts In FY

WBS No: 1DAB02 Rockv Flats Closure Project Project Baseline Devl
Activity ID: 1DF0200R01 Baseline Cost and Basis of Estimate WBS Filter 1DAB

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				Activity Filter	*	Starts In FY *
es	Cost Element	Skill		Department	Curve	Ouantity Units
750	STRAIGHT TIME BASE	C020 ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	0.58 Hours
Factor	s 1.6 Hours	0.3612 82/227 Davs remaining			T	
750	STRAIGHT TIME BASE	E050 ENVIRONMENTAL ENGINEERS	R100S	RMRS Salaried	Linear	0.18 Hours
Factor	s 0.5 Hours	0.3612 82/227 Davs remaining			T	
750	STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	0.54 Hours
Factor	s 1.5 Hours	0.3612 82/227 Davs remaining			T	
750	STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	0.29 Hours
Factor	s 0.8 Hours	0.3612 82/227 Davs remaining	_	T		
750	STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	0.29 Hours
Factor	s 0.8 Hours	0.3612 82/227 Davs remaining	_	T		
750	STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	0.14 Hours
Factor		0.3612 82/227 Davs remaining	_	T		
750	STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	0.58 Hours
Factor	s 1.6 Hours	0.3612 82/227 Davs remaining	_	T		
750	STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	0.29 Hours
Factor	s 0.8 Hours	0.3612 82/227 Davs remaining				
A57	LATA	P070 COST ESTIMATORS PLANNERS AN	K399S	Buildina 776 Proiect	Linear	10.84 Dollars
Factor	s 30 Dollars		_	0.3612 82/227 Davs remaining		
A5C	SUPPLIES	0000 NONE	K399S	Buildina 776 Proiect	Linear	11.76 Dollars
Factor	s 32.55 Dollars			0.3612 82/227 Days remaining		

Activity ID: 1DF0201C00 Description: B776/777 Landlord - Corrective Maintenance FY-01 Cost Risk 2 Schedule Risk

Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
C01	Modification Packages	10.00	Mod Pkgs	HC	235	2,352	52,043	61,272	0	113,315	24,825	138,140
C02	SWP Packages	36.00	SWP Pkgs	HC	102	3,685	79,423	49,476	0	128,899	37,885	166,784
C03	Level of Effort Packages	40.00	LOE Pkgs	HC	33	1,320	27,419	13,224	0	40,643	13,079	53,721
C04	IWCP Pkgs (Davis Bacon Covered)	5.00	IWCP Pkgs	HC	96	480	11,275	270,000	0	281,275	5,378	286,653
C05	Maintenance Infrastructure	1.00	FY	HC	5,400	5,400	141,642	114,750	0	256,392	67,563	323,955
SYS	Contingency And Escalation	1.00	ea	EE	0	0	0	0	51,274	51,274	0	51,274
	Tot	al for Activi	tv 1DF02010	200:		13.237	311.802	508.722	51.274	871.798	148,729	1.020.527

Line Item C01 - Modification Packages

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Repairs to VSS/Non-VSS systems that cannot be accomplished using a standard work package (SWP). This work requires engineering review example: Work requiring breech of Zone 1 containment. (each)

Resources

es	Cost Element		Skill		Department	Curve	Ouantity Units
750	STRAIGHT TIME BASE	C020 ELEC	CTRICIANS	KD10H	776 Complex Steelworkers	Linear	43.20 Hours
Factors	36 Hours	1.2	20% forJHA and walkdowns				
750	STRAIGHT TIME BASE	E050 ENVI	RONMENTAL ENGINEERS	R100S	RMRS Salaried	Linear	0.60 Hours
Factors	0.5 Hours	1.2	20% forJHA and walkdowns				
750	STRAIGHT TIME BASE	P090 INDU	ISTRIAL HYGIENISTS	R100S	RMRS Salaried	Linear	12.00 Hours
Factors	10 Hours	1.2	20% forJHA and walkdowns				
750	STRAIGHT TIME BASE	T050 RAD	IATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	48.00 Hours
Factors	40 Hours	1.2	20% forJHA and walkdowns				
750	STRAIGHT TIME BASE	T060 D&D	HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	43.20 Hours
Factors	36 Hours	1.2	20% forJHA and walkdowns				
750	STRAIGHT TIME BASE	T060 D&D	HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	21.60 Hours
Factors	18 Hours	1.2	20% forJHA and walkdowns				
750	STRAIGHT TIME BASE	T060 D&D	HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	21.60 Hours
Factors	18 Hours	1.2	20% forJHA and walkdowns				

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WBS No: 1DAB02 Rockv Flats Closure Project Project Baseline Devl
Activity ID: 1DF0201C00 Baseline Cost and Basis of Estimate 1DAB

	Daseille Cost alla Dasis di Estilli	Activity Filter *	Starts In FY *
750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Comp	olex Steelworkers Linear	21.60 Hours
Factors 18 Hours	1.2 20% forJHA and walkdowns		
750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Comp	olex Steelworkers Linear	10.80 Hours
Factors 9 Hours	1.2 20% forJHA and walkdowns		
751 OVERTIME BASE & PRE.	C020 ELECTRICIANS KD10H 776 Comp	olex Steelworkers Linear	2.59 Hours
Factors 2.16 Hours	1.2 20% forJHA and walkdowns		
751 OVERTIME BASE & PRE.	T050 RADIATION CONTROL TECHNOLIGI KD10H 776 Comp	olex Steelworkers Linear	2.88 Hours
Factors 2.4 Hours	1.2 20% forJHA and walkdowns		
751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Comp	olex Steelworkers Linear	1.30 Hours
Factors 1.08 Hours	1.2 20% forJHA and walkdowns		
751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Comp	lex Steelworkers Linear	2.59 Hours
Factors 2.16 Hours	1.2 20% forJHA and walkdowns		
751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Comp	lex Steelworkers Linear	0.67 Hours
Factors 0.56 Hours	1.2 20% forJHA and walkdowns		
751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Comp	lex Steelworkers Linear	1.30 Hours
Factors 1.08 Hours	1.2 20% forJHA and walkdowns		
751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Comp	lex Steelworkers Linear	1.30 Hours
Factors 1.08 Hours	1.2 20% forJHA and walkdowns		
A57 LATA	E110 QUALITY CONTROL ENGINEERS K399S Building 77	76 Proiect Linear	576.00 Dollars
Factors 480 Dollars	1.2	20% forJHA and walkdowns	
A57 LATA	P070 COST ESTIMATORS PLANNERS AN K399S Building 77	76 Proiect Linear	3.052.80 Dollars
Factors 2544 Dollars	1.2	20% forJHA and walkdowns	
A5C SUPPLIES	0000 NONE K399S Building 77	76 Project Linear	2,498.40 Dollars
Factors 2082 Dollars	1.2	20% forJHA and walkdowns	

Line Item C02 - SWP Packages

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Description: Standard Work Packages (SWPs) are pre-approved IWCP work packages used for trouble-shooting and repair of VSS/Non-VSS systems and components that meet the requirements of NSM 4.03. Engineering support is required for SWPs.

Resources

es		Cost Element		Skill		Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	25.20	Hours
I	Factors	21 Hours		1.2 20% forJHA and walkdowns	.				
	750	STRAIGHT TIME BASE	E050	ENVIRONMENTAL ENGINEERS	R100S	RMRS Salaried	Linear	0.60	Hours
I	Factors	0.5 Hours		1.2 20% forJHA and walkdowns					
L	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	10.80	Hours
I	Factors .	9 Hours		1.2 20% forJHA and walkdowns	ì	1		1	
L	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	12.00	Hours
I	Factors	10 Hours		1.2 20% forJHA and walkdowns				T	
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	12.00	Hours
I	Factors	10 Hours		1.2 20% forJHA and walkdowns	1			T	
L	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	25.20	Hours
I	Factors	21 Hours		1.2 20% forJHA and walkdowns				1	
L	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	10.80	Hours
I	Factors	9 Hours		1.2 20% forJHA and walkdowns	1				
L	751	OVERTIME BASE & PRE.	C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	1.51	Hours
I	Factors	1.26 Hours		1.2 20% forJHA and walkdowns		1		1	
	751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI		776 Complex Steelworkers	Linear	0.65	Hours
I	Factors	0.54 Hours		1.2 20% forJHA and walkdowns		1		1	
	751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED		776 Complex Steelworkers	Linear	0.72	Hours
I	Factors	0.6 Hours		1.2 20% forJHA and walkdowns		1		1	
	751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED		776 Complex Steelworkers	Linear	0.72	Hours
I	Factors	0.6 hour OT per package		1.2 20% forJHA and walkdowns	;				

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WBS No: 1DAB02 Rocky Flats Closure Project
Activity ID: 1DF0201C00 Resulting Cost and Basis of Estimate

Proiect Baseline Devl WBS Filter 1DAB

		Baselille Cost at	iu basis di Estillate	Activity Filter *	Starts In FY *
751 OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelwo	rkers Linear	1.51 Hours
Factors 1.26 Hours		1.2 20% forJHA and walkdowns			
751 OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelwo	rkers Linear	0.65 Hours
Factors 0.54 Hours		1.2 20% forJHA and walkdowns			
A57 LATA	P070	COST ESTIMATORS PLANNERS AN	K399S Building 776 Project	Linear	43.20 Dollars
Factors 36 Dollars			1.2 20% forJHA	and walkdowns	
A57 LATA	P070	COST ESTIMATORS PLANNERS AN	K399S Building 776 Project	Linear	719.14 Dollars
Factors 599.283 Dollars			1.2 20% forJHA	and walkdowns	
A5C SUPPLIES	0000	NONE	K399S Building 776 Project	Linear	612.00 Dollars
Factors 510 dollars			1.2 20% forJHA	and walkdowns	

Line Item C03 - Level of Effort Packages

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Description - LOE Packages are used for repairs to VSS/Non-VSS systems using "skill of the craft" and "like for like" materials, but do not meet the criteria of the IWCP definition of "minor maintenance". Packages are reviewed and approved by the appropriate disciplines per the requirements of IWCP and no engineering or modifications to the equipment are required. Example (VSS fan belt change)

Resources

es		Cost Element		Skill			Department	Curve	Quantity	Units
L	750	STRAIGHT TIME BASE	C020 EL	ECTRICIANS	KD10H	776 Com	nplex Steelworkers	Linear	8.64	Hours
1	Factors	7.2 Hours	1	1.2 20% forJHA and walkdowns						
L	750	STRAIGHT TIME BASE	T050 RA	ADIATION CONTROL TECHNOLIGI	KD10H	776 Com	polex Steelworkers	Linear	0.60	Hours
Į.	Factors	0.5 Hours	1	1.2 20% forJHA and walkdowns						
L	750	STRAIGHT TIME BASE	T060 D8	&D HAZ REDUC TECH / RISK RED	KD10H	776 Com	nplex Steelworkers	Linear	4.32	Hours
Į.	Factors	3.6 Hours	1	1.2 20% forJHA and walkdowns						
L	750	STRAIGHT TIME BASE	T060 D8	&D HAZ REDUC TECH / RISK RED	KD10H	776 Com	nplex Steelworkers	Linear	4.32	Hours
Į.	Factors	3.6 Hours	1	1.2 20% forJHA and walkdowns						
L	750	STRAIGHT TIME BASE	T060 D8	&D HAZ REDUC TECH / RISK RED	KD10H	776 Com	nplex Steelworkers	Linear	4.32	Hours
Į.	Factors	3.6 Hours	1	1.2 20% forJHA and walkdowns						
L	750	STRAIGHT TIME BASE	T060 D8	&D HAZ REDUC TECH / RISK RED	KD10H	776 Com	nplex Steelworkers	Linear	8.64	Hours
Į.	Factors	7.2 Hours	1	1.2 20% forJHA and walkdowns						
L	750	STRAIGHT TIME BASE	T060 D8	&D HAZ REDUC TECH / RISK RED	KD10H	776 Com	plex Steelworkers	Linear	2.16	Hours
Į.	Factors	1.8 Hours	1	1.2 20% forJHA and walkdowns						
L	A57	LATA	P070 CC	OST ESTIMATORS PLANNERS AN	K399S	Buildina	776 Proiect	Linear	144.00	Dollars
Į.	Factors	120 Dollars				1.2	20% forJHA and walkdowns			
L	A5C	SUPPLIES	0000 NC	ONE	K399S	Buildina	776 Proiect	Linear	186.60	Dollars
Ì	Factors	155.5 Dollars				1.2	20% forJHA and walkdowns			

Line Item C04 - IWCP Pkgs (Davis Bacon Covered)

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - IWCP Packages covered under Davis Bacon criteria.

Resources

es	Cost Element			Skill			De	epartment	Curve	Quantity	Units
75	STRAIGHT TIME BASE	P170	OTHER A	ADMINISTRATI	VE & PROFE	R100S	RMRS Salarie	ed	Linear	48.00	Hours
Facto	rs 40 hours per package		1.2	20% forJHA	and walkdowns						
75	STRAIGHT TIME BASE	T050	RADIATI	ON CONTROL	TECHNOLIGI	KD10H	776 Complex	Steelworkers	Linear	48.00	Hours
Facto	rs 40 Hours		1.2	20% forJHA	and walkdowns						
A50	SUPPLIES	0000	NONE			K399S	Buildina 776 F	Proiect	Linear	6.000.00	Dollars
Facto	rs 5000 Dollars in supplies for each	DB IWC	P				1.2 20%	6 forJHA and walkdowns			
A5	H SUBCONTRACTED SRVS	0000	NONE			K399S	Buildina 776 F	Proiect	Linear	48.000.00	Dollars
Facto	rs 40000 dollars						1.2 20%	6 forJHA and walkdowns			

Line Item C05 - Maintenance Infrastructure

BOE Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item

WBS No: 1DAB02 Activity ID: 1DF0201C00

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter Baseline Devl 1DAB

Activity Filter * Si

level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Summary Document - Rev 0.

Item Desc - Maintenance Infrastructure comprises management and oversight scope that can not reasonably or effectively be allocated to specific maintenance packages.

Resources

es	Cost Element			Skill		Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	R100S	RMRS Salaried	Linear	3.600.00 H	lours
	Factors	2 Pflipsen, Knapp		1800 Hours					
	750	STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	R100S	RMRS Salaried	Linear	1.800.00 H	lours
	Factors	 Senior specialist - Vanzant 		1800 Hours					
	A5C	SUPPLIES	0000	NONE	K399S	Buildina 776 Proiect	Linear	114.750.00 D	ollars

Factors 114750 Dollars

Line Item SYS - Contingency And Escalation

BOE

Resources

Line Item

es		Cost Element		Skill		Department	Curve	Quantity	Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	30.892.45	Dollars
	Factors	30892.5 Dollars							
	ESC	ESCALATION	0000	NONE	7DEPT	No Department	Linear	20 381 23	Dollars

BOE

Type

HC

EE

Units

Ouantity

1.00 ea

1.00 ea

Total for Activity 1DF0201M00:

Factors 20381.2 Dollars

Major IWCPs (Install 2 Chillers)

Contingency And Escalation

Activity ID: 1DF0201M00 Description: B776/777 Landlord - Major IWCP's

Description

Cost Risk 2 Schedule Risk

300.000

Cost Risk 2 Schedule Risk 0												
Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost							
Total	Cost	& Escalation	Cost									
375	300.000	0	300.375	179	300.554							
0	0	15.899	15.899	0	15.899							

15.899

316.275

316.454

Line Item M01 - Major IWCPs (Install 2 Chillers)

BOE

M01

SYS

Historical Data Source - The historical data is from the FY99 actual costs for the procurement and installation of a new chiller. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Labor

Hours/Unit

18

Labor Hours

Total

18

0

18

375

Item Desc - Procure and install two additional chillers to replace the chiller to be removed from the compressor house. Two chillers are required to take the volumetric throughput of the existing chiller that is to be taken out of service in FY-01.

Resources

es	Cost Element	Skill	Department	Curve	Ouantity Units
7	750 STRAIGHT TIME BASE	P170 OTHER ADMINISTRATIVE & PROFE	C210S Facilities Mamt & Maintenance	Linear	0.25 Hours
Fac	ctors 0.25 Hours				
7	750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	2.00 Hours
Fac	ctors 2 Hours				
7	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	16.00 Hours
Fac	ctors 16 Hours				
P	A5C SUPPLIES	0000 NONE	K399S Building 776 Project	Linear	300.000.00 Dollars

Factors 300000 dollare to procure and install the two

Line Item SYS - Contingency And Escalation

BOE

Resource

ces	es <u>Cost Element</u> Skill				Department	Curve	Quantity	Units	
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	9,579.40	Dollars
_	Factors	9579.4 Dollars							
	ESC	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	6,319.99	Dollars

Factors 6319.99 Dollars

Activity ID: 1DF	0201P00	Description: B776/777 Landlord - Prevent	ative Maint	FY-01			Cost Risk	2 Schedule I	Risk	3

Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
P01 PMO's Carpenter Support		192.00	PMO	НС	2	384	7.857	0	0	7.857	3.748	11.604

1DAB02 Proiect Baseline Devl **Rocky Flats Closure Project** Activity ID: 1DF0201P00 WBS Filter 1DAB **Baseline Cost and Basis of Estimate**

						Activ	vity Filter *		Sta	arts In FY *	
P01A	PMO's Electrician Support	360.00 PM	O HC	2	720	15.574	0	0	15.574	7.429	23.002
P01B	PMO's Machinist Support	520.00 PM	O HC	2	1.040	21.278	0	0	21.278	10.150	31.428
P01C	PMO's SSOC Pipefitter Support	50.00 PM	O HC	9	450	9.207	0	0	9.207	4.392	13.599
P01D	PMO's Alarms Support	100.00 PM	O HC	9	900	19.467	0	0	19.467	9.286	28.753
P01E	PMO's Site Services Pipefitter Support	9.00 PM	O HC	16	144	2.946	0	0	2.946	1.405	4.352
P01G	Supplies	1.00 eac	h HC	0	0	0	10.810	0	10.810	0	10.810
P02A	UPS / Elevator Maintenance	1.00 ea	VQ	64	64	1.384	8.900	0	10.284	660	10.945
P02B	Maintenance Services	1.00 eac	h HC	0	0	0	20.620	0	20.620	0	20.620
P02C	Refrigeration	12.00 eac	h HC	16	192	3.928	0	0	3.928	1.874	5.802
P03	Calibrations	1.00 ea	HC	1.869	1.869	45.045	0	0	45.045	21.486	66.531
SYS	Contingency And Escalation	1.00 ea	EE	0	0	0	0	12.032	12.032	0	12.032
		Total for Activity 11	DE0201P00-		5 763	126 686	40 330	12 032	179 048	60 429	239 478

Line Item P01 - PMO's Carpenter Support

BOE

WBS No:

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Carpenter Support to Preventative Mtce Orders (Perform routine inspections of hoist/rigging each month and an annual inspection - which serves as a monthly - 16 hoists) (each)

Resource

rces	Cost Element	Skill	Department	Curve	Quantity	Units
	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	2.00	Hours

Factors 2 Hours/ea Line Item P01A - PMO's Electrician Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Electrician Support for Preventative Maintenance Orders (e.g., Perform routine, monthly inspections of emergency lighting, batteries, fork truck, fork truck batteries & outside lighting).

Resource

ces		Cost Element		Skill		Department	(Curve	Quantity	Units	
	750 STRA	GHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	L	inear	2.0	00 Hours	

2 Factors Hours/ea

Line Item P01B - PMO's Machinist Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Machinist Support for Preventative Maintenance Orders (e.g., Perform routine, monthly inspections of HVAC equipment, fan belt inspections and vibration analysis.)

Resources

3		Cost Element		Skill	Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	2.00	Hours

Factors 2 Hours/ea Line Item P01C - PMO's SSOC Pipefitter Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Pipefitter Support for Preventative Maintenance Orders (e.g., Perform routine quarterly and annual inspections of Anti freeze loops (8), and annual fire suppression systems (8).)

Resourc

rces	Cost Element		Skill		Department		Curve	Ouantity	Units	ı
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	9 00	Hours	ı

Factors 9 Hours/ea

Line Item P01D - PMO's Alarms Support

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item BOE

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WBS No: 1DAB02 *Activity ID:* 1DF0201P00

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter

r 1DAB

Baseline Devl

Activity Filter * Starts In FY *

level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Alarms Support for Preventative Maintenance Orders - Perform routine monthly, quarterly and annual inspections of Fire panels & LSDW batteries.

Resources

 Cost Element
 Skill
 Department
 Curve
 Quantity
 Units

 750
 STRAIGHT TIME BASE
 C020
 ELECTRICIANS
 C211S
 Electrical Maintenance
 Linear
 9.00lHours

Factors 9 Hours/ea

Line Item P01E - PMO's Site Services Pipefitter Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Pipefitter Support Item Desc - Pipefitter Support for Preventative Maintenance Orders -Perform annual inspections of Backflow preventors (9).

Resources

 Cost Element
 Skill
 Department
 Curve
 Quantity
 Units

 750
 STRAIGHT TIME BASE
 T060
 D&D HAZ REDUC TECH / RISK RED
 KD10H
 776 Complex Steelworkers
 Linear
 16.00 Hours

Factors 16 Hours/ea

Line Item P01G - Supplies

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Materials & Supplies required for Preventative Maintenance Orders.

Resources

s	Cost Element Skill		Department	Curve	Ouantity Un	its
	A5C SUPPLIES	0000 NONE	K399S Building 776 Project	Linear	10.810.00 Dolla	rs

Factors 10810 Dollars

Line Item P02A - UPS / Elevator Maintenance

BOE

Item Description: Semi-annual inspections of the B776/777 freight elevator and Uninterruptable Power Supply (UPS).

Vendor Name - Certified Elevator Co.

Vendor Quote - 8,700 (\$5,200 elevator, \$3,500 UPS inspection)

Quote Received by - Procurement

Item being quoted - Elevator and UPS Inspections

Other Info - This contract was in place for FY-98

Availability - Other support costs are based on Estimator Judgement

Resources

;	Cost Element		Skill		Department	Curve	Quantity	Units
750	STRAIGHT TIME BASE	C020	ELECTRICIANS	C211S	Electrical Maintenance	Linear	64.00 H	Hours
Factors	2 Inspections		32 Hours					
A5C	SUPPLIES	0000	NONE	K399S	Building 776 Proiect	Linear	200.00	Dollars
Factors	200 Dollars in supplies							
A5H	SUBCONTRACTED SRVS	0000	NONE	K399S	Building 776 Proiect	Linear	5.200.00	Dollars
Factors	2 Semiannual Inspection of e	levator	2600 dollars					
A5H	SUBCONTRACTED SRVS	0000	NONE	K399S	Building 776 Project	Linear	3.500.00	Dollars
Factors	 Annual inspection of UPS 		3500 Dollars					

Line Item P02B - Maintenance Services

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0

Item Desc - Maintenance Services performed in support of B776/777 for inspection of chillers (performed by York International on a service contract), air dryers and compressors (both performed by Cate Colorado Equipment Co.) Supplies are reimbursable costs to be provided by the subcontractor. They are being planned as A5C to differentiate between service costs and forecast supplies.

Resources

es			Element		Skill		Department	Curve	<i>Ouantity</i>	Units
	A5C	SUPPLIES		0000	NONE	C210S	Facilities Momt & Maintenance	Linear	2.500.00	Oollars
	Factors	2500 D	Oollars in supplies for all							

WBS No: 1DAB02 Activity ID: 1DF0201P00

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect Bas WBS Filter 1DA

Baseline Devl

				Dascille Oost all	a Dasis	Activity Filter	*	Starts In FY *
A5H	SUBCONTRACTED SRVS	0000	NONE		C210S	Facilities Momt & Maintenance	Linear	8.356.00 Dollars
Factors	4 Air Compressors		2089	Dollars per inspection perform	ned by			
A5H	SUBCONTRACTED SRVS	0000	NONE		C210S	Facilities Mgmt & Maintenance	Linear	5.586.00 Dollars
Factors	2 Chillers		2793	Dollars per Chiller performed	bv York			
A5H	SUBCONTRACTED SRVS	0000	NONE		C210S	Facilities Mgmt & Maintenance	Linear	4.178.00 Dollars
Factors	2 Air Dryers		2089	Dollars per inspection				

Line Item P02C - Refrigeration

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Refrigeration Maintenance Support (each) A5H is "Ingersoll-Rand".

Resources

ces		Cost Element	Skill	Department	Curve	<i>Ouantity</i>	Units
	750	STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	16.00	Hours

Factors 16 Hours/ea

Line Item P03 - Calibrations

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Calibration Support to Preventative Mtce Orders - Calibration of installed instrumentation and M & TE are funded in this work package to ensure an accurate indication of building conditions and for performance assurance during maintenance activities.

Calibrations include Zone 1 Utility Loops, Magahelics on Gloveboxes, and controllers on the HVAC system and other safety related calibrations.

Resources

es	Cost Element		Skill		Department	Curve	Quantity	Units
	750 STRAIGHT TIME BASE	M010	FOREMEN / TEAM LEADS / GROUP	C100S	Closure Site Services	Linear	225.00	Hours
F	Factors 225 Hours				T.			
	750 STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	C100S	Closure Site Services	Linear	200.00	Hours
F	Factors 200 Hours				T			
	750 STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	100.00	Hours
F	Factors 100 Hours				T			
	750 STRAIGHT TIME BASE	T070	MAINT, TECHS, (INSTRUMENT TEC	KD10H	776 Complex Steelworkers	Linear	1.215.00	Hours
F	Factors 1215 Hours				T			
	751 OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	25.00	Hours
F	Factors 25 Hours				T			
	751 OVERTIME BASE & PRE.	T070	MAINT, TECHS, (INSTRUMENT TEC	KD10H	776 Complex Steelworkers	Linear	104.00	Hours
F	Factors 104 Hours							

Line Item SYS - Contingency And Escalation

BOE

Resources

es	Cost Element		Skill		Department	Curve	Quantity	Units
	CON CONTINGENCY	0000	0 NONE	ZDEPT	No Department	Linear	7.249.25	Dollars
	Factors 7249.25 Dollars							
	ESC ESCALATION	0000	0 NONE	ZDEPT	No Department	Linear	4,782.67	Dollars

Factors 4782.67 Dollars

Activity ID:	1DF0201R00	Description: B776/777 Landlord - Routing	e Maintenar	nce FY-01			Cost Risk	2 Schedule R	Risk	3

Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
M01	Replace Pressure Release Valves	5.00	Valves	HC	18	91	1,877	500	0	2,377	895	3,272
R01	Minor Maintenance Packages	1,000.00	Maint Pkgs	HC	8	8,000	170,537	62,550	0	233,087	81,346	314,433
SYS	Contingency And Escalation	1.00	ea	EE	0	0	0	0	16.807	16.807	0	16.807
	Tot	Total for Activity 1DF0201R00:				8.091	172.414	63.050	16.807	252.271	82.242	334.512

Line Item M01 - Replace Pressure Release Valves

BOE Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item

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WBS No: 1DAB02 Activity ID: 1DF0201R00

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect
WBS Filter
Activity Filter

Baseline Devl 1DAB

Starts In FY *

level based on FY99 line item to total technical support quotients.

Item Desc - Pressure Release Valve Replacement -Replace PRV's on the plant air/instrument air system and steam system.

Resources

es	Cost Element		Skill		Department	Curve	Quantity Units
	750 STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	C210S	Facilities Momt & Maintenance	Linear	0.25 Hours
e	Factors 0.25 Hours						
	750 STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	2.00 Hours
i e	Factors 2 Hours						
	750 STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	16.00 Hours
-	Factors 16 Hours						
	A5C SUPPLIES	0000	NONE	K399S	Building 776 Project	Linear	100.00 Dollars

Factors 100 In supplies per PRV

Line Item R01 - Minor Maintenance Packages

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Craft Support for the completion of Minor Maintenance activities.

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	1.60	Hours
ا	Factors	1.6 Hours					T.		
L	750	STRAIGHT TIME BASE	E050	ENVIRONMENTAL ENGINEERS	R100S	RMRS Salaried	Linear	0.50	Hours
4	Factors	0.5 Hours		1		Т	1		
L	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	1.50	Hours
ď	Factors	1.5 Hours		1		T			
L	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	0.80	Hours
ř	Factors	0.8 Hours		I		T			
L	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	0.80	Hours
ŕ	Factors	0.8 Hours		1		1			
L	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	0.40	Hours
ŕ	Factors	0.4 Hours							
L	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	1.60	Hours
ŕ	Factors	1.6 Hours		<u> </u>		T		1	
L	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	0.80	Hours
ď	Factors	0.8 Hours				T			
L	A57	LATA	P070	ICOST ESTIMATORS PLANNERS AN	K399S	Buildina 776 Proiect	Linear	30.00	Dollars
ŕ	Factors	30 Dollars		1		T		1	
L	A5C		0000	NONE	K399S	Building 776 Project	Linear	32.55	Dollars

Factors 32.55 Dollars

Line Item SYS - Contingency And Escalation

BOE

Resources

ces		Cost Element		Skill		Department	Curve	<i>Ouantity</i>	Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	10.126.05	Dollars
	Factors	10126.1 Dollars		•		·			·
		ESCALATION	0000	NONE	ZDEPT	No Department	Linear	6.680.64	Dollars

Factors 6680.64 Dollars

Activity ID: 1DF0202C00 Description: B776/777 Landlord - Corrective Maintenance FY-02

Line Item	Description	Quantity	Units	BOE Type	Labor Hours/Unit	Labor Hours Total	Labor Cost Total	Materials/ Sub	Contingency & Escalation	Total Prime Cost	Burden Cost	Total Cost
C01	Modification Packages	8.00	Mod Pkas	HC	235	1.882		49.018		90.652	14.697	105.349
C02	SWP Packages	36.00	SWP Pkas	НС	102	3.685	79.423	49.476	0	128.899	28.036	156.935
C03	Level of Effort Packages	40.00	LOE Pkas	HC	33	1.320	27.419	13.224	0	40.643	9.679	50.321
C04	IWCP Pkas	5.00	IWCP Pkas	HC	96	480	11.275	270.000	0	281.275	3.980	285.255

Cost Risk

2 Schedule Risk

 WBS No:
 1DAB02

 Activity ID:
 1DF0202C00

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter Baseline Devl 1DAB

		Daseille C	Jost ai	id Dasis of Est	imate	Activit	v Filter *	Starts In FY *			
C05	Maintenance Infrastructure	1.00 FY	HC	5.400	5.400	141.642	114.750	0	256.392	50.000	306.392
SYS	Contingency And Escalation	1.00 ea	EE	0	0	0	0	134.804	134.804	0	134.804
	·	al for Activity 1DF0202C00:			12.767	301.393	496.468	134.804	932.665	106.392	1.039.057

Line Item C01 - Modification Packages

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Repairs to VSS/Non-VSS systems that cannot be accomplished using a standard work package (SWP). This work requires engineering review example: Work requiring breech of Zone 1 containment. (each)

Resources

_					
es	Cost Element	Skill	Department	Curve	Ouantity Units
L	750 STRAIGHT TIME BASE	C020 ELECTRICIANS	KD10H 776 Complex Steelworkers	Linear	43.20 Hours
į	Factors 36 Hours	1.2 20% forJHA and walkdown	S		
L	750 STRAIGHT TIME BASE	E050 ENVIRONMENTAL ENGINEERS	R100S RMRS Salaried	Linear	0.60 Hours
į	Factors 0.5 Hours	1.2 20% forJHA and walkdown	S		
L	750 STRAIGHT TIME BASE	P090 INDUSTRIAL HYGIENISTS	R100S RMRS Salaried	Linear	12.00 Hours
į	Factors 10 Hours	1.2 20% forJHA and walkdown	S		
L	750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	48.00 Hours
į	Factors 40 Hours	1.2 20% forJHA and walkdown			
L	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	43.20 Hours
į	Factors 36 Hours	1.2 20% forJHA and walkdown	S		
L	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	21.60 Hours
į	Factors 18 Hours	1.2 20% forJHA and walkdown			
L	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	21.60 Hours
į	Factors 18 Hours	1.2 20% forJHA and walkdown			
L	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	21.60 Hours
į	Factors 18 Hours	1.2 20% forJHA and walkdown			
L	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	10.80 Hours
į	Factors 9 Hours	1.2 20% forJHA and walkdown			
L	751 OVERTIME BASE & PRE.	C020 ELECTRICIANS	KD10H 776 Complex Steelworkers	Linear	2.59 Hours
į.	Factors 2.16 Hours	1.2 20% forJHA and walkdown			
L	751 OVERTIME BASE & PRE.	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	2.88 Hours
į.	Factors 2.4 Hours	1.2 20% forJHA and walkdown			
L	751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	1.30 Hours
į.	Factors 1.08 Hours	1.2 20% forJHA and walkdown			
L	751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	2.59 Hours
Á	Factors 2.16 Hours	1.2 20% forJHA and walkdown			
L	751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED		Linear	0.67 Hours
Á	Factors 0.56 Hours	1.2 20% forJHA and walkdown			
L	751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	1.30 Hours
Á	Factors 1.08 Hours	1.2 20% forJHA and walkdown			
L	751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	1.30 Hours
À	Factors 1.08 Hours	1.2 20% forJHA and walkdown			
L	A57 LATA	E110 QUALITY CONTROL ENGINEERS	K399S Building 776 Project	Linear	576.00 Dollars
À	Factors 480 Dollars		1.2 20% forJHA and walkdowns		
L	A57 LATA	P070 COST ESTIMATORS PLANNERS AN		Linear	3.052.80 Dollars
À	Factors 2544 Dollars		1.2 20% forJHA and walkdowns		
	A5C SUPPLIES	0000 NONE	K399S Building 776 Project	Linear	2.498.40 Dollars
1	Factors 2082 Dollars		1.2 20% forJHA and walkdowns		

Line Item C02 - SWP Packages

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

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WBS No: 1DAB02 Activity ID: 1DF0202C00

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter Activity Filter

Baseline Devl 1DAB

Starts In FY *

Resources

Item Desc - Support to SWP Maintenance Packages (each)

ct :II	р	9	0 3 11 11
2000			Ouantity Units 25.20 Hours
		Linear	25.20IHours
		1.1	0.0011
		Linear	0.60 Hours
		1.1	40.0011
		Linear	10.80 Hours
		Linean	12.00 Hours
		Linear	12.00IHours
		Linean	12.00 Hours
		Linear	12.00IHours
		Linean	05 0011
		Linear	25.20 Hours
		Linean	10.80 Hours
		Linear	TU.8UIHOUIS
		Linean	1.51 Hours
		Linear	l.511Hours
		Linnar	0.65 Hours
		Linear	O.OOIIIOUIS
		Linnar	0.72 Hours
		Linear	U./ZIMOUIS
		Lincor	0.72 Hours
		Lilicai	0.72 110u15
		Linoar	1.51 Hours
	·	Lilleal	1.511110013
		Linear	0.65 Hours
		Lilloai	0.00 110013
		Linear	43.20 Dollars
1 1 0/0 OCC1 ECTIVIATIONS EANIVERS		Lilloai	70.20 D0 a 3
P070 COST ESTIMATORS PLANNERS AN		Linear	719.14 Dollars
		Ellioui	, io.i iisoliais
0000 NONE		Linear	612.00 Dollars
, 0000 n (O)1E	1.2 20% forJHA and walkdowns	-IIIOUI	O I E.OOI DOIIGIO
	E050 ENVIRONMENTAL ENGINEERS 1.2 20% forJHA and walkdown T050 RADIATION CONTROL TECHNOLIGI 1.2 20% forJHA and walkdown T060 D&D HAZ REDUC TECH / RISK RED 1.2 20% forJHA and walkdown T060 D&D HAZ REDUC TECH / RISK RED 1.2 20% forJHA and walkdown T060 D&D HAZ REDUC TECH / RISK RED 1.2 20% forJHA and walkdown T060 D&D HAZ REDUC TECH / RISK RED 1.2 20% forJHA and walkdown T060 D&D HAZ REDUC TECH / RISK RED 1.2 20% forJHA and walkdown T050 RADIATION CONTROL TECHNOLIGI 1.2 20% forJHA and walkdown T060 D&D HAZ REDUC TECH / RISK RED 1.2 20% forJHA and walkdown T060 D&D HAZ REDUC TECH / RISK RED 1.2 20% forJHA and walkdown T060 D&D HAZ REDUC TECH / RISK RED 1.2 20% forJHA and walkdown T060 D&D HAZ REDUC TECH / RISK RED 1.2 20% forJHA and walkdown T060 D&D HAZ REDUC TECH / RISK RED 1.2 20% forJHA and walkdown T060 D&D HAZ REDUC TECH / RISK RED 1.2 20% forJHA and walkdown T060 D&D HAZ REDUC TECH / RISK RED 1.2 20% forJHA and walkdown T060 D&D HAZ REDUC TECH / RISK RED 1.2 20% forJHA and walkdown T060 D&D HAZ REDUC TECH / RISK RED 1.2 20% forJHA and walkdown T060 D&D HAZ REDUC TECH / RISK RED 1.2 20% forJHA and walkdown T060 D&D HAZ REDUC TECH / RISK RED 1.2 20% forJHA and walkdown T060 D&D HAZ REDUC TECH / RISK RED 1.2 20% forJHA and walkdown T060 D&D HAZ REDUC TECH / RISK RED 1.2 20% forJHA and walkdown T060 D&D HAZ REDUC TECH / RISK RED 1.2 20% forJHA and walkdown T060 D&D HAZ REDUC TECH / RISK RED 1.2 20% forJHA and walkdown	C020 ELECTRICIANS	CO20 ELECTRICIANS KD10H 776 Complex Steelworkers Linear

Line Item C03 - Level of Effort Packages

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Support to Level of Effort Packages (each)

Resources

es	Cost Element		Skill		Department	Curve	Ouantity Units
750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	8.64 Hours
Factors	7.2 Hours		1.2 20% forJHA and walkdowns				
750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	0.60 Hours
Factors	0.5 Hours		1.2 20% forJHA and walkdowns				
750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	4.32 Hours
Factors	3.6 Hours		1.2 20% forJHA and walkdowns				
750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	4.32 Hours
Factors	3.6 Hours		1.2 20% forJHA and walkdowns				
750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	4.32 Hours
Factors	3.6 Hours		1.2 20% forJHA and walkdowns				
750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	8.64 Hours
Factors	7.2 Hours		1.2 20% forJHA and walkdowns				

WBS No: 1DAB02 Rockv Flats Closure Project Project Baseline Devl
Activity ID: 1DF0202C00 Baseline Cost and Basis of Estimate USS Filter 1DAB

		Activity Fil	ter "	Starts In FY
750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RIS	SK RED KD10H 776 Complex Steelworkers	Linear	2.16 Hours
Factors 1.8 Hours	1.2 20% forJHA and wa	alkdowns		
A57 LATA	P070 COST ESTIMATORS PLANNE	ERS AN K399S Building 776 Project	Linear	144.00 Dollars
Factors 120 Dollars		1.2 20% forJHA and walkdowns		
A5C SUPPLIES	0000 NONE	K399S Building 776 Project	Linear	186.60 Dollars
Factors 155.5 Dollars		1.2 20% forJHA and walkdowns		

Line Item C04 - IWCP Pkgs

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - IWCP Packages Davis Bacon Covered (each)

Resources

es		Cost Element		_	Skill		Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	P170	OTHER A	DMINISTRATIVE & PROFE	R100S	RMRS Salaried	Linear	48.00	Hours
ز	Factors	40 hours per package		1.2	20% forJHA and walkdowns					
	750	STRAIGHT TIME BASE	T050	RADIATIO	ON CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	48.00	Hours
ز	Factors	40 Hours		1.2	20% forJHA and walkdowns					
L	A5C	SUPPLIES	0000	NONE		K399S	Building 776 Project	Linear	6.000.00	Dollars
نے	Factors	5000 Dollars in supplies for each	DB IWC	<u>P</u>			1.2 20% forJHA and walkdowns			
L	A5H	SUBCONTRACTED SRVS	0000	NONE		K399S	Building 776 Project	Linear	48.000.00	Dollars
	Factors	40000 dollars					1.2 20% forJHA and walkdowns			

Line Item C05 - Maintenance Infrastructure

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Summary Document - Rev 0.

Item Desc - Maintenance Infrastructure contains management and oversight scope that can not be reasonably or effectively allocated to specific maintenance packages.

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
Ĺ	750	STRAIGHT TIME BASE	P170	P170 OTHER ADMINISTRATIVE & PROFE		RMRS Salaried	Linear	3.600.00 H	Hours
	Factors	2 Pflipsen, Knapp		1800 Hours					
	750	STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	R100S	RMRS Salaried	Linear	1.800.00 H	Hours
-	Factors	1 Senior specialist - Vanzant		1800 Hours					
	A5C	SUPPLIES	0000	NONE	K399S	Building 776 Project	Linear	114.750.00	Dollars
	Factors	114750 Dollars							

Line Item SYS - Contingency And Escalation

BOE

Resources

ces	Cost Element			Skill		Department	Curve	Quantity	Units
	CON CONTINGENCY		0000	NONE	ZDEPT	No Department	Linear	92.547.45 Dollars	
	Factors	92547.5 Dollars							
	ESC	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	42.257.04	Dollars

Factors 42257.0 Dollars

Activity ID: 1DF0202P00	Description: B776/777 Landlord - Preventative Maint FY-02	Cost Risk 2 Schedule Risk 3
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Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
P01	PMO's Carpenter Support	192.00	PMO	HC	2	384	7.857	0	0	7.857	2.773	10.630
P01A	PMO's Electrician Support	360.00	PMO	HC	2	720	15.574	0	0	15.574	5.497	21.071
P01B	PMO's Machinist Support	520.00	PMO	HC	2	1.040	21.278	0	0	21.278	7.511	28.790
P01C	PMO's SSOC Pipefitter Support	50.00	PMO	HC	9	450	9.207	0	0	9.207	3.250	12.457
P01D	PMO's Alarms Support	100.00	PMO	HC	9	900	19.467	0	0	19.467	6.872	26.339
P01E	PMO's Site Services Pipefitter Support	9.00	PMO	HC	16	144	2,946	0	0	2,946	1,040	3,986
P01G	Supplies	1.00	each	HC	0	0	0	10,810	0	10,810	0	10,810
P02A	UPS / Elevator Maintenance	1.00	ea	VQ	64	64	1,384	8,900	0	10,284	489	10,773

Rockv Flats Closure Proiect Proiect Baseline Devl
Baseline Cost and Basis of Estimate 1DAB

						Acti	vitv Filter "		Sta	arts In FY *	
P02B	Maintenance Services	1.00 each	НС	0	0	0	20.620	0	20.620	0	20.620
P02C	Refrigeration	12.00 each	HC	16	192	3.928	0	0	3.928	1.387	5.315
P03	Calibrations	1.00 ea	HC	1.869	1.869	45.045	0	0	45.045	15.901	60.946
SYS	Contingency And Escalation	1.00 ea	EE	0	0	0	0	31.565	31.565	0	31.565
		Total for Activity 1DE02	02P00·		5 763	126 686	40 330	31 565	198 582	44 720	243 302

Line Item P01 - PMO's Carpenter Support

1DAB02

1DF0202P00

BOE

WBS No:

Activity ID:

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Carpenter Support to Preventative Mtce Orders (Perform routine inspections of hoist/rigging each month and an annual inspection - which serves as a monthly - 16 hoists) (each)

Resources Cost Element Skill Department Curve Quantity Units 750 STRAIGHT TIME BASE T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers Linear 2.00 Hours

Factors 2 Hours/ea

Line Item P01A - PMO's Electrician Support BOE Historical Data Source

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Electrician Support to Preventative Mtce Orders (Perform routine, monthly inspections of Emergency lighting, batteries, fork truck, fork truck batteries, Outside lighting).

Resources

rces	Cost Element			Skill		Department	Curve	Quantity	Units
[750 STRAIGHT TIME BASE		C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	2.00	Hours

Factors 2 Hours/ea

Line Item P01B - PMO's Machinist Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Machinist Support to Preventative Mtce Orders - Perform routine, monthly inspections of HVAC equipment, fan belt inspections and vibration analysis.

Resources

6	Cost Element	Skill	Department	Curve	Ouantity U	Units
750	STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	2.00 Ho	ours

Factors 2 Hours/ea

Line Item P01C - PMO's SSOC Pipefitter Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Pipefitter Support to Preventative Mtce Orders -Perform routine quarterly and annual inspections of Anti freeze loops (8), and annual fire suppression systems (8). (each)

Resources

es	Cost Element Skill			Department	Curve	Ouantity	Units		
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	9.00	Hours

Factors 9 Hours/ea

Line Item P01D - PMO's Alarms Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Alarms Support to Preventative Mtce Orders - Perform routine monthly, quarterly and annual inspections of Fire panels, LSDW batteries.

Resources

es	S Cost Element		Skill		Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	C020 ELECTRICIANS	C211S	Electrical Maintenance	Linear	9.00	Hours

Factors 9 Hours/ea

WBS No: 1DAB02 Rocky Flats Closure Project
Activity ID: 1DF0202P00 Baseline Cost and Basis of Estimate

Proiect Baseline Devl WBS Filter 1DAB Activity Filter *

Starts In FY

Line Item P01E - PMO's Site Services Pipefitter Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Pipefitter Support to Preventative Mtce Orders -Perform annual inspections of Backflow preventors (9).

Resources

es		Cost Element		Skill		Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	16.00	Hours

Factors 16 Hours/ea

Line Item P01G - Supplies

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Supplies required for Preventative Mtce Orders.

Resources

es		Cost Element		Skill		Department	Curve	Ouantity	Units
	A5C	SUPPLIES	0000	NONE	K399S	Building 776 Project	Linear	10.810.00	Dollars

Factors 10810 Dollars

Line Item P02A - UPS / Elevator Maintenance

BOE

Vendor Name - Certified Elevator Co.

Vendor Quote - 8,700 (\$5,200 elevator, \$3,500 UPS inspection)

Quote Received by - Procurement

Item being quoted - Elevator and UPS Inspections Other Info - This contract was in place for FY-98

Availability - Other support costs are based on Estimator Judgement

Resources

es		Cost Element			Skill		Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	C020	ELECTRICI	IANS	C211S	Electrical Maintenance	Linear	64.00	Hours
_	Factors	2 Inspections		. 32	Hours					
	A5C	SUPPLIES	0000	NONE		K399S	Building 776 Project	Linear	200.00	Dollars
_	Factors	200 Dollars in supplies								
	A5H	SUBCONTRACTED SRVS	0000	NONE		K399S	Building 776 Project	Linear	5.200.00	Dollars
_	Factors	2 Semiannual Inspection of el	evator	2600	dollars					
	A5H	SUBCONTRACTED SRVS	0000	NONE		K399S	Building 776 Project	Linear	3,500.00	Dollars
	Factors	 Annual inspection of UPS 		3500	Dollars					

Line Item P02B - Maintenance Services

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Maintenance Services performed in support of B776/777 for inspection of chillers (performed by York International on a service contract), air dryers and compressors (both performed by Cate Colorado Equipment Co.) Supplies are reimbursable costs to be provided by the subcontractor. They are being planned as A5C to differentiate between service costs and forecast supplies.

Resources

es	Cost Element		Skill		Department	Curve	Ouantity	Units
	A5C SUPPLIES	0000 NONE	(C210S	Facilities Mgmt & Maintenance	Linear	2.500.00	Dollars
	Factors 2500 Dollars in supplies for all							
	A5H SUBCONTRACTED SRVS	0000 NONE	(C210S	Facilities Mamt & Maintenance	Linear	8.356.00	Dollars
,	Factors 4 Air Compressors	2089	Dollars per inspection perform	ed bv	T.			
Į	A5H SUBCONTRACTED SRVS	0000 NONE	(C210S	Facilities Momt & Maintenance	Linear	5.586.00	Dollars
	Factors 2 Chillers	2793	Dollars per Chiller performed b	ov York				
Į	A5H SUBCONTRACTED SRVS	0000 NONE	(C210S	Facilities Momt & Maintenance	Linear	4.178.00	Dollars
	Factors 2 Air Dryers	2089	Dollars per inspection					

Line Item P02C - Refrigeration

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

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WBS No: 1DAB02 Activity ID: 1DF0202P00

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect
WBS Filter
Activity Filter

Baseline Devl 1DAB

Starts In FY

Document - Rev 0.

Item Desc - Refrigeration Maintenance Support provided by "Ingersoll-Rand".

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	16.00	Hours

Factors 16 Hours/ea

Line Item P03 - Calibrations

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Calibration Support for Preventative Maintenance Orders (Calibration of installed instrumentation and M & TE are funded in this work package to ensure an accurate indication of building conditions and for performance assurance during maintenance activities.)

Calibrations include Zone 1 Utility Loops, Magahelics on Gloveboxes, and controllers on the HVAC system and other safety related calibrations.

Resources

es	Cost Element		Skill		Department	Curve	Ouantity Units
750	STRAIGHT TIME BASE	M010	FOREMEN / TEAM LEADS / GROUP	C100S	Closure Site Services	Linear	225.00 Hours
Factors	225 Hours						
750	STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	C100S	Closure Site Services	Linear	200.00 Hours
Factors	200 Hours						
750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	100.00 Hours
Factors	100 Hours						
750	STRAIGHT TIME BASE	T070	MAINT. TECHS. (INSTRUMENT TEC	KD10H	776 Complex Steelworkers	Linear	1.215.00 Hours
Factors	1215 Hours						
751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	25.00 Hours
Factors	25 Hours						
751	OVERTIME BASE & PRE.	T070	MAINT. TECHS. (INSTRUMENT TEC	KD10H	776 Complex Steelworkers	Linear	104.00 Hours
Factors	104 Hours						

Line Item SYS - Contingency And Escalation

BOE

Resources

es		Cost Element		Skill		Department	Curve	<i>Ouantity</i>	Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	21.670.58	Dollars
	Factors	21670.6 Dollars		•		·	·	·	·
	ESC	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	9.894.76	Dollars

Factors 9894.76 Dollars

Activity ID: 1DF0202R00

Description: B776/777 Landlord - Routine Maintenance FY-02

Cost Risk 2 Schedule Risk

3

Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
M01	Replace Pressure Release Valves	5.00	Valves	HC	18	91	1.877	500	0	2.377	663	3.040
R01	Minor Maintenance Packages	1.000.00	Maint Pkgs	HC	8	8.000	170.537	62.550	0	233.087	60.200	293.287
SYS	Contingency And Escalation	1.00	ea	EE	0	0	0	0	44.176	44.176	0	44.176
	Total for Activity 1DF0202R00:						172.414	63.050	44,176	279.640	60.862	340.502

Line Item M01 - Replace Pressure Release Valves

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Pressure Release Valve Replacement -Replace existing PRV's on the plant air/instrument air system and steam system

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	C210S	Facilities Momt & Maintenance	Linear	0.25	Hours
	Factors	0.25 Hours							
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	2.00	Hours
	Factors	2 Hours							

 WBS No:
 1DAB02
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750 STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers		Linear	16.00	Hours
Factors 16 Hours	-' 		•			·		
A5C SUPPLIES	0000	NONE	K399S	Building 776 Project		Linear	100.00	Dollars

Factors 100 In supplies per PRV

Line Item R01 - Minor Maintenance Packages

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Support to Minor Maintenance Packages

Resources

S Cost Element	Skill	Department	Curve	Ouantity Units
750 STRAIGHT TIME BASE	C020 ELECTRICIANS	KD10H 776 Complex Steelworkers	Linear	1.60 Hours
Factors 1.6 Hours				
750 STRAIGHT TIME BASE	E050 ENVIRONMENTAL ENGINEERS	S R100S RMRS Salaried	Linear	0.50 Hours
Factors 0.5 Hours				
750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNO	OLIGI KD10H 776 Complex Steelworkers	Linear	1.50 Hours
Factors 1.5 Hours	T T			
750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK	RED KD10H 776 Complex Steelworkers	Linear	0.80 Hours
Factors 0.8 Hours				
750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK	RED KD10H 776 Complex Steelworkers	Linear	0.80 Hours
Factors 0.8 Hours	T =			T
750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK	RED KD10H 776 Complex Steelworkers	Linear	0.40 Hours
Factors 0.4 Hours		(DED ((D) (0)		
750 STRAIGHT TIME BASE	I 1060 ID&D HAZ REDUC TECH / RISK	RED KD10H 776 Complex Steelworkers	Linear	1.60lHours
Factors 1.6 Hours	TOCO DODINAZ DEDIJO TECH / DICK	(DED VD4011 770 O1 Oth1	Linne	0.0011
750 STRAIGHT TIME BASE Factors 0.8 Hours	T060 ID&D HAZ REDUC TECH / RISK	RED KD10H 776 Complex Steelworkers	Linear	0.80lHours
Factors 0.8 Hours A57 LATA	P070 COST ESTIMATORS PLANNER	RS AN K399S Building 776 Project	Linear	30.00 Dollars
Factors 30 Dollars	1 FUTU ICOST ESTIMATORS FLANNER	AS AIV N.3555 Dullullu 110 Fluect	Lilledi	30.00ID0IIais
A5C SUPPLIES	0000 NONE	K399S Building 776 Project	Linear	32.55 Dollars
Factors 32.55 Dollars	1 0000 11101112	1 10000 Ibanania 1701 Toloot	Linear	OZ.OOIDOIIdi3

Factors 32.55 Dollars
Line Item SYS - Contingency And Escalation

BOE

Resources

s	Cost Element		Skill		Department	Curve	Quantity Units
CON	CON CONTINGENCY		0000 NONE		No Department	Linear	30.328.07 Dollars
Factors	30328.1 Dollars						
ESC	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	13.847.75 Dollars

Factors 13847.8 Dollars

Activity ID: 1DF0203C00	Description: B776/777 Landlord - Corrective Maintenance FY-03	Cost Risk 2 Schedule Risk	3

Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	0 2	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
C01	Modification Packages	6.00	Mod Pkas	HC	235	1.411	31.226	36.763	0	67.989	10.804	78.793
C02	SWP Packages	36.00	SWP Pkas	HC	102	3.685	79.423	49.476	0	128.899	27.480	156.379
C03	Level of Effort Packages	40.00	LOE Pkas	HC	33	1.320	27.419	13.224	0	40.643	9.487	50.129
C04	IWCP Pkgs (Davis Bacon Covered)	5.00	IWCP Pkas	HC	96	480	11.275	270.000	0	281.275	3.901	285.176
C05	Maintenance Infrastructure	1.00	FY	HC	5.400	5.400	141.642	114.750	0	256.392	49.008	305.400
SYS	Contingency And Escalation	1.00	ea	EE	0	0	0	0	242.227	242.227	0	242.227
	Tot	al for Activi	ty 1DF02030	200:		12.296	290.984	484.213	242.227	1.017.425	100.681	1.118.105

Line Item C01 - Modification Packages

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Repairs to VSS/Non-VSS systems that cannot be accomplished using a standard work package (SWP). This work requires engineering review example: Work requiring breech of Zone 1 containment. (each)

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WBS No: 1DAB02Activity ID: 1DF0203C00

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect
WBS Filter

Baseline Devl 1DAB

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s C	ost Element	Skill		Department	Curv	ve Ouantity	Units
750 STRAIGHT	TIME BASE C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linea	ar 43.20	Hours
Factors 36	Hours	1.2 20% forJHA and walkdowns	į .				
750 STRAIGHT	TIME BASE E050	ENVIRONMENTAL ENGINEERS	R100S	RMRS Salaried	Linea	ar 0.60	Hours
Factors 0.5	Hours	1.2 20% forJHA and walkdowns					
750 STRAIGHT	TTIME BASE P090	INDUSTRIAL HYGIENISTS	R100S	RMRS Salaried	Linea	ar 12.00	Hours
Factors 10	Hours	1.2 20% forJHA and walkdowns					
750 STRAIGHT	TTIME BASE T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linea	ar 48.00	Hours
Factors 40	Hours	1.2 20% forJHA and walkdowns					
750 STRAIGHT	TIME BASE T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linea	ar 43.20	Hours
Factors 36	Hours	1.2 20% forJHA and walkdowns					
750 STRAIGHT	TIME BASE T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linea	ar 21.60	Hours
Factors 18	Hours	1.2 20% forJHA and walkdowns					
750 STRAIGHT	TIME BASE T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linea	ar 21.60	Hours
Factors 18	Hours	1.2 20% forJHA and walkdowns					
750 STRAIGHT	TIME BASE T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linea	ar 21.60	Hours
Factors 18	Hours	1.2 20% forJHA and walkdowns					
750 STRAIGHT	TIME BASE T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linea	ar 10.80	Hours
Factors 9	Hours	1.2 20% forJHA and walkdowns					
751 OVERTIME	E BASE & PRE. C020	ELECTRICIANS		776 Complex Steelworkers	Linea	ar 2.59	Hours
Factors 2.16	Hours	1.2 20% forJHA and walkdowns					
751 OVERTIME	BASE & PRE. T050			776 Complex Steelworkers	Linea	ar 2.88	Hours
Factors 2.4	Hours	1.2 20% forJHA and walkdowns		T			
	BASE & PRE. T060	D&D HAZ REDUC TECH / RISK RED		776 Complex Steelworkers	Linea	ar 1.30	Hours
Factors 1.08	Hours	1.2 20% forJHA and walkdowns		1			
	BASE & PRE. T060	<u> </u>	•	776 Complex Steelworkers	Linea	ar 2.59	Hours
Factors 2.16	Hours	1.2 20% forJHA and walkdowns		1			
	E BASE & PRE. T060	<u> </u>	•	776 Complex Steelworkers	Linea	ar 0.67	Hours
Factors 0.56	Hours	1.2 20% forJHA and walkdowns					
		D&D HAZ REDUC TECH / RISK RED	•	776 Complex Steelworkers	Linea	ar 1.30	Hours
Factors 1.08	Hours	1.2 20% forJHA and walkdowns					
		D&D HAZ REDUC TECH / RISK RED		776 Complex Steelworkers	Linea	ar 1.30l	Hours
Factors 1.08	Hours	1.2 20% forJHA and walkdowns		T		Т	
A57 LATA		QUALITY CONTROL ENGINEERS	K399S	Building 776 Project	Linea	ar 576.00	Dollars
Factors 480	Dollars			1.2 20% forJHA and v			
A57 LATA		COST ESTIMATORS PLANNERS AN	K399S	Building 776 Proiect	Linea	ar 3.052.80	Dollars
Factors 2544	Dollars		1	1.2 20% forJHA and v			
A5C SUPPLIES		INONE	K399S		Linea	ar 2.498.40	Dollars
Factors 2082	Dollars			1.2 20% forJHA and v	walkdowns		
2 CIVID Dooksons							

Line Item C02 - SWP Packages

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Support to SWP Maintenance Packages (each)

Resources

s	Cost Element		Skill		Department	Curve	Ouantity Units
	750 STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	25.20 Hours
Fc	actors 21 Hours		1.2 20% forJHA and walkdowns				
	750 STRAIGHT TIME BASE	E050	ENVIRONMENTAL ENGINEERS	R100S	RMRS Salaried	Linear	0.60 Hours
Fc	actors 0.5 Hours		1.2 20% forJHA and walkdowns				
	750 STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	10.80 Hours
Fc	actors 9 Hours		1.2 20% forJHA and walkdowns				
	750 STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	12.00 Hours
Fo	actors 10 Hours		1.2 20% forJHA and walkdowns				

WBS No: 1DAB02 Activity ID: 1DF0203C00

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter

Baseline Devl 1DAB

	Activity Filter *	Starts In FY *
750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers Linear	12.00 Hours
Factors 10 Hours	1.2 20% forJHA and walkdowns	
750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers Linear	25.20 Hours
Factors 21 Hours	1.2 20% forJHA and walkdowns	
750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers Linear	10.80 Hours
Factors 9 Hours	1.2 20% forJHA and walkdowns	
751 OVERTIME BASE & PRE.	C020 ELECTRICIANS KD10H 776 Complex Steelworkers Linear	1.51 Hours
Factors 1.26 Hours	1.2 20% forJHA and walkdowns	
751 OVERTIME BASE & PRE.	T050 RADIATION CONTROL TECHNOLIGI KD10H 1776 Complex Steelworkers Linear	0.65 Hours
Factors 0.54 Hours	1.2 20% forJHA and walkdowns	
751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers Linear	0.72 Hours
Factors 0.6 Hours	1.2 20% forJHA and walkdowns	
751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers Linear	0.72 Hours
Factors 0.6 hour OT per package	1.2 20% forJHA and walkdowns	
751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers Linear	1.51 Hours
Factors 1.26 Hours	1.2 20% forJHA and walkdowns	
751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers Linear	0.65lHours
Factors 0.54 Hours	1.2 20% forJHA and walkdowns	
A57 LATA	P070 COST ESTIMATORS PLANNERS AN K399S Building 776 Project Linear	43.20 Dollars
Factors 36 Dollars	1.2 20% forJHA and walkdowns	
A57 LATA	P070 COST ESTIMATORS PLANNERS AN K399S Building 776 Project Linear	719.14 Dollars
Factors 599.283 Dollars	1.2 20% forJHA and walkdowns	
A5C SUPPLIES	0000 NONE K399S Building 776 Project Linear	612.00 Dollars
Factors 510 dollars	1.2 20% forJHA and walkdowns	

Line Item C03 - Level of Effort Packages

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Support to Level of Effort Packages (each)

Resources

Cost Element	Skill	Department	Curve	Ouantity Units
750 STRAIGHT TIME BASE	C020 ELECTRICIANS	KD10H 776 Complex Steelworkers	Linear	8.64 Hours
Factors 7.2 Hours	1.2 20% forJHA and walkdow	ns		
750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIG	I KD10H 776 Complex Steelworkers	Linear	0.60 Hours
Factors 0.5 Hours	1.2 20% forJHA and walkdow	ns		
750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	4.32 Hours
Factors 3.6 Hours	1.2 20% forJHA and walkdow	ns		
750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	4.32 Hours
Factors 3.6 Hours	1.2 20% forJHA and walkdow	ns		
750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	4.32 Hours
Factors 3.6 Hours	1.2 20% forJHA and walkdow	ns		
750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	8.64 Hours
Factors 7.2 Hours	1.2 20% forJHA and walkdow	ns		
750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	2.16 Hours
Factors 1.8 Hours	1.2 20% forJHA and walkdow	ns		
A57 LATA	P070 COST ESTIMATORS PLANNERS AN	K399S Building 776 Project	Linear	144.00 Dollars
Factors 120 Dollars		1.2 20% forJHA and walkdowns		
A5C SUPPLIES	0000 NONE	K399S Building 776 Project	Linear	186.60 Dollars
Factors 155.5 Dollars		1.2 20% for JHA and walkdowns		

Line Item C04 - IWCP Pkgs (Davis Bacon Covered)

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - IWCP Packages Davis Bacon Covered (each)

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WBS No: 1DAB02 Baseline Devl Proiect Rocky Flats Closure Project 1DAB Activity ID: 1DF0203C00 WBS Filter **Baseline Cost and Basis of Estimate** Activity Filter Starts In FY Units Resources Cost Element Department Curve 750 STRAIGHT TIME BASE P170 OTHER ADMINISTRATIVE & PROFE R100S RMRS Salaried Linear 48.00 Hours 20% forJHA and walkdowns 40 hours per package RADIATION CONTROL TECHNOLIGI | KD10H | 776 Complex Steelworkers 48.00 Hours 750 STRAIGHT TIME BASE Linear 40 Hours 1.2 20% for JHA and walkdowns Factors A5C SUPPLIES 0000 NONE 6.000.00 Dollars K399S Building 776 Project Linear Factors 5000 Dollars in supplies for each DB IWCP 1.2 20% for JHA and walkdowns A5H SUBCONTRACTED SRVS 0000 NONE K399S Building 776 Project Linear 48.000.00 Dollars Factors 40000 dollars 1.2 20% for JHA and walkdowns Line Item C05 - Maintenance Infrastructure Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item BOE level based on FY99 line item to total technical support quotients. Item Desc - Maintenance Infrastructure contains management and oversight scope that can not be reasonably or effectively allocated to specific maintenance packages. Cost Element Resources Quantity 1.800.00 Hours 750 STRAIGHT TIME BASE P170 OTHER ADMINISTRATIVE & PROFE R100S RMRS Salaried Linear Factors 1 Senior specialist - Vanzant 1800 Hours 3.600.00 Hours 750 STRAIGHT TIME BASE P170 OTHER ADMINISTRATIVE & PROFE R100S RMRS Salaried Linear Pflipsen, Knapp Factors 2 1800 Hours A5C SUPPLIES 0000 NONE K399S Building 776 Project Linear 114.750.00 Dollars Factors 114750 Dollars Line Item SYS - Contingency And Escalation BOE Resources Cost Element Department **Ouantity** Units CON CONTINGENCY 0000 NONE ZDEPT No Department 175 059 90 Dollars Linear Factors 175060 Dollars ESC ESCALATION 0000 NONE ZDEPT No Department Linear 67.166.98 Dollars Factors 67167 Dollars Activity ID: 1DF0203P00 Description: B776/777 Landlord - Preventative Maint FY-03 Cost Risk 2 Schedule Risk Labor Labor Hours Labor Cost Materials/ Sub | Contingency Total Prime Burden Cost Line Item Description Quantity BOETotal Cost Type Hours/Unit Total **Total** Cost & Escalation Cost 192.00 PMO HC P01 PMO's Carpenter Support 384 7.857 0 O 7.857 2.718 10.575 360.00 PMO HC P01A PMO's Electrician Support 2 720 15.574 0 0 15.574 5.388 20.962 P01B PMO's Machinist Support 520.00 PMO HC 2 1.040 21.278 0 0 21.278 7.362 28.641 P01C PMO's SSOC Pipefitter Support 50.00 PMO HC 9 450 9.207 0 0 9.207 3.186 12.393 100.00 PMO HC 0 P01D PMO's Alarms Support 9 900 19.467 0 19.467 6.736 26.203 PMO's Site Services Pipefitter Support 9.00 PMO HC P01E 16 144 2.946 0 0 2.946 1.019 3.966 P01G Supplies 1.00 each HC 0 0 0 10.810 0 10.810 0 10.810 P02A UPS / Elevator Maintenance 1.00 ea VQ 64 64 1.384 8.900 0 10.284 479 10.763 P02B Maintenance Services 1.00 each HC 0 0 0 20.620 0 20.620 0 20.620

Line Item P01 - PMO's Carpenter Support

Refrigeration

Contingency And Escalation

Calibrations

BOE

P02C

P03

SYS

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

16

Λ

1.869

192

0

1.869

5.763

3 928

45.045

126.686

Item Desc - Carpenter Support to Preventative Mtce Orders (Perform routine inspections of hoist/rigging each month and an annual inspection - which serves as a monthly - 16 hoists) (each)

Resources	Cost Element	Skill	Department	Curve	Ouantity	Units

HC

HC

FF

12.00 each

1.00 ea

1.00 ea

Total for Activity 1DF0203P00:

0

0

0

40.330

O

0

58.311

58.311

3.928

45.045

58.311

225.327

1.359

15.586

43.833

0

5.288

60.630

58.311

269.161

Rockv Flats Closure Proiect Proiect Baseline Devl

Baseline Cost and Basis of Estimate

WBS Filter

Activity Filter

*

750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	2.00 Hours
Factors	2 Hours/ea						

Line Item P01A - PMO's Electrician Support

1DF0203P00

1DAB02

BOE

WBS No:

Activity ID:

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Electrician Support to Preventative Mtce Orders (Perform routine, monthly inspections of Emergency lighting, batteries, fork truck, fork truck batteries, Outside lighting).

Resources

 Cost Element
 Skill
 Department
 Curve
 Quantity
 Units

 750
 STRAIGHT TIME BASE
 C020
 ELECTRICIANS
 C211S
 Electrical Maintenance
 Linear
 2.00 Hours

 Factors
 2
 Hours/ea

Line Item P01B - PMO's Machinist Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Machinist Support to Preventative Mtce Orders - Perform routine, monthly inspections of HVAC equipment, fan belt inspections and vibration analysis.

Resources

es		Cost Element		Skill		Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	2.00	Hours

Factors 2 Hours/ea Line Item P01C - PMO's SSOC Pipefitter Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Pipefitter Support to Preventative Mtce Orders -Perform routine quarterly and annual inspections of Anti freeze loops (8), and annual fire suppression systems (8). (each)

Resources

es		Cost Element		Skill	Department	Curve	<i>Ouantity</i>	Units
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	9.00	Hours

Factors 9 Hours/ea

Line Item P01D - PMO's Alarms Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Alarms Support to Preventative Mtce Orders - Perform routine monthly, quarterly and annual inspections of Fire panels, LSDW batteries.

Resources

Ĭ	750 STRAIGHT TIME BASE	C020 ELECTRICIANS	KD10H 776 Complex Steelworkers	Linear	9.00 Hours	
s	Cost Element	Skill	Department	Curve	Ouantity Units	

Factors 9 Hours/ea

Line Item P01E - PMO's Site Services Pipefitter Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Pipefitter Support to Preventative Mtce Orders -Perform annual inspections of Backflow preventors (9).

Resources

Cost Element Skill		Department	Curve	Ouantity Units
750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	16.00 Hours

Factors 16 Hours/ea

Line Item P01G - Supplies

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Supplies required for Preventative Mtce Orders.

Resources

rces		Cost Element		Skill	Department	Curve	Quantity	Units
	A5C	SUPPLIES	0000	NONE	K399S Building 776 Project	Linear	10,810.00	Dollars
	Factors	10810 Dollars						

Starts In FY

Rockv Flats Closure Project
Baseline Cost and Basis of Estimate

Proiect
WBS Filter
Activity Filter

Baseline Devl 1DAB

Starts In FY *

Line Item P02A - UPS / Elevator Maintenance

1DF0203P00

1DAB02

BOE

WBS No:

Activity ID:

Vendor Name - Certified Elevator Co.

Vendor Quote - 8,700 (\$5,200 elevator, \$3,500 UPS inspection)

Quote Received by - Procurement

Item being quoted - Elevator and UPS Inspections Other Info - This contract was in place for FY-98

Availability - Other support costs are based on Estimator Judgement

Resources

es	Cost Element		Skill		Department	Curve	Ouantity Units
750	STRAIGHT TIME BASE	C020	ELECTRICIANS	C211S	Electrical Maintenance	Linear	64.00 Hours
Factors	2 Inspections		32 Hours			-	
A5C	SUPPLIES	0000	NONE	K399S	Building 776 Project	Linear	200.00 Dollars
Factors	200 Dollars in supplies					-	
A5H	SUBCONTRACTED SRVS	0000	NONE	K399S	Building 776 Project	Linear	5.200.00 Dollars
Factors	2 Semiannual Inspection of e	levator	2600 dollars				
A5H	SUBCONTRACTED SRVS	0000	NONE	K399S	Building 776 Project	Linear	3.500.00 Dollars
Factors	1 Annual inspection of UPS		3500 Dollars				

Line Item P02B - Maintenance Services

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Maintenance Services performed in support of B776/777 for inspection of chillers (performed by York International on a service contract), air dryers and compressors (both performed by Cate Colorado Equipment Co.) Supplies are reimbursable costs to be provided by the subcontractor. They are being planned as A5C to differentiate between service costs and forecast supplies.

Resources

es	Cost Element		Skill			Department	Curve	Quantity	Units
	A5C SUPPLIES	0000	NONE		C210S	Facilities Mgmt & Maintenance	Linear	2,500.00	Dollars
	Factors 2500 Dollars in supp	lies for all							
	A5H SUBCONTRACTED SRVS	0000	NONE		C210S	Facilities Mgmt & Maintenance	Linear	8,356.00	Dollars
	Factors 4 Air Compresso	rs	2089	Dollars per inspection perform	med by				
	A5H SUBCONTRACTED SRVS	0000	NONE		C210S	Facilities Mgmt & Maintenance	Linear	5,586.00	Dollars
	Factors 2 Chillers		2793	Dollars per Chiller performed	by York				
	A5H SUBCONTRACTED SRVS	0000	NONE		C210S	Facilities Mgmt & Maintenance	Linear	4,178.00	Dollars
	Factors 2 Air Dryers		2089	Dollars per inspection					

Line Item P02C - Refrigeration

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Refrigeration Maintenance Support (each A5H is "Ingersoll-Rand".

Resources

rces	Cost Element Skill				Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	16.00	Hours

Factors 16 Hours/ea

Line Item P03 - Calibrations

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Calibration Support to Preventative Mtce Orders - Calibration of installed instrumentation and M & TE are funded in this work package to ensure an accurate indication of building conditions and for performance assurance during maintenance activities.

Calibrations include Zone 1 Utility Loops, Magahelics on Gloveboxes, and controllers on the HVAC system and other safety related calibrations.

Resource

ces		Cost Element		Skill		Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	M010	FOREMEN / TEAM LEADS / GROUP	C100S	Closure Site Services	Linear	225.00	Hours
	Factors	225 Hours							
	750	STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	C100S	Closure Site Services	Linear	200.00	Hours
	Factors	200 Hours							

Activity ID:	1DAB02 1DF0203P00					Closure P				aseline Devl DAB	S	Starts In FY *	
	750 STRAIGHT TIME BASE	T050	RADIATIO	ON CONTROL TECHN	OLIGI	KD10H 776	Complex Steel	lworkers		Linear		100.00 Hour	s
	Factors 100 Hours					1							
	750 STRAIGHT TIME BASE	T070	MAINT. T	ECHS. (INSTRUMENT	TEC	KD10H 776	Complex Steel	lworkers		Linear		1.215.00 Hour	S
	Factors 1215 Hours 751 OVERTIME BASE & PRE.	T050	DADIATIC	ON CONTROL TECHN		KD4011 776	Campley Cteel	huadrana		Linear		25.00 Hour	
	Factors 25 Hours	1 1050	IKADIATIC	JN CONTROL TECHN	JLIGI	KD10H 1776	Complex Steel	Iworkers		Linear		25.00IH0ur	S
	751 OVERTIME BASE & PRE.	T070	MAINT. T	ECHS. (INSTRUMENT	TEC	KD10H 776	Complex Steel	lworkers		Linear		104.00 Hour	s
	Factors 104 Hours												
Line Item SYS	S - Contingency And Escalation												
BOE													
Resources	Cost Element			Skill			Departi	ment		Curve	(Quantity Un	its
	CON CONTINGENCY	0000	NONE			ZDEPT No	Department			Linear		42.142.07 Dolla	rs
	Factors 42142.1 Dollars								1			1	
	ESC ESCALATION	0000	NONE			ZDEPT No	Department			Linear		16.169.07 Dolla	rs
	Factors 16169.1 Dollars			ino Maintenanco EV 03					a ni				
Activity ID:	1DF0203R00	/ Landlord	ו Routine - נ	Maintenance FY-03		1	T	T	Cost Risk	2 Schedule Ris		1	
Line Item	n Description			Quantity Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub		Total Prime	Burden Cost	Total Cost
1404				- aa v	Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		2.22
M01 R01	Replace Pressure Release Valves Minor Maintenance Packages			5.00 Valves 1.000.00 Maint Pkgs	HC HC	18 8	91 8.000	1.877 170.537	500 62.550		2.377		3.027 292.093
SYS	Contingency And Escalation			1.000.00 Waint Pkgs	FF	0	8.000	170.537	62.550		233.067 81.616		292.093 81.616
510	Continuency And Estatation		Tota	al for Activity 1DF0203F			8.091	172.414	63.050		317.080		376.736
	level based on FY99 line item to to Item Desc - Pressure Release Valve			place existing PR		n the plant			ystem and s	steam system			
Resources		P170	OTLIED A	Skill									
	750 STRAIGHT TIME BASE Factors 0.25 Hours	T P1/0	UTHERA	DMINICTD ATIVE & DE	OFF	C240C Faa	Departs			Curve	(Quantity Un	
	Tuciois 0.23 Hours			DMINISTRATIVE & PF	ROFE	C210S Fac	Departi ilities Mamt & N			Curve Linear	(Ouantity Un 0.25 Hour	
	750 STRAIGHT TIME BASE	T050	RADIATIO				ilities Mamt & N	Maintenance		Linear	(0.25 Hour	s
	750 STRAIGHT TIME BASE Factors 2 Hours	T050	RADIATIO	DMINISTRATIVE & PE				Maintenance			(s
	•	T050	1		OLIGI	KD10H 776	ilities Mamt & N	Maintenance Iworkers		Linear		0.25 Hour	s s
	Factors 2 Hours 750 STRAIGHT TIME BASE Factors 16 Hours	T060	D&D HAZ	ON CONTROL TECHN	OLIGI	KD10H 776	Complex Steel Complex Steel	Maintenance Iworkers Iworkers		Linear Linear		0.25 Hour 2.00 Hour 16.00 Hour	s s
	Factors 2 Hours 750 STRAIGHT TIME BASE Factors 16 Hours A5C SUPPLIES	T060	1	ON CONTROL TECHN	OLIGI	KD10H 776	ilities Mamt & N	Maintenance Iworkers Iworkers		Linear Linear		0.25 Hour 2.00 Hour	s s
Line Herr Book	Factors 2 Hours 750 STRAIGHT TIME BASE Factors 16 Hours A5C SUPPLIES Factors 100 In supplies per PRV	T060	D&D HAZ	ON CONTROL TECHN	OLIGI	KD10H 776	Complex Steel Complex Steel	Maintenance Iworkers Iworkers		Linear Linear Linear		0.25 Hour 2.00 Hour 16.00 Hour	s s
	Factors 2 Hours 750 STRAIGHT TIME BASE Factors 16 Hours A5C SUPPLIES Factors 100 In supplies per PRV 1 - Minor Maintenance Packages	T060	D&D HAZ	ON CONTROL TECHN	OLIGI	KD10H 776 KD10H 776 K399S Buil	Complex Steel Complex Steel Complex Steel dina 776 Proies	Maintenance lworkers lworkers	Thorac d	Linear Linear Linear Linear		0.25 Hour 2.00 Hour 16.00 Hour 100.00 Dolla	s s s s s s s s s s s s s s s s s s s
Line Item R01 BOE	Factors 2 Hours 750 STRAIGHT TIME BASE Factors 16 Hours A5C SUPPLIES Factors 100 In supplies per PRV 1 - Minor Maintenance Packages Historical Data Source - The histor level based on FY99 line item to to	T060 0000 ical datal tech	D&D HAZ	ON CONTROL TECHN	OLIGI RED	KD10H 776 KD10H 776 K399S Buil	Complex Steel Complex Steel Complex Steel dina 776 Proies	Maintenance lworkers lworkers	y. These o	Linear Linear Linear Linear		0.25 Hour 2.00 Hour 16.00 Hour 100.00 Dolla	s s
	Factors 2 Hours 750 STRAIGHT TIME BASE Factors 16 Hours A5C SUPPLIES Factors 100 In supplies per PRV 1 - Minor Maintenance Packages Historical Data Source - The histor	T060 0000 ical datal tech	D&D HAZ	ON CONTROL TECHN	OLIGI RED	KD10H 776 KD10H 776 K399S Buil	Complex Steel Complex Steel Complex Steel dina 776 Proies	Maintenance lworkers lworkers	y. These o	Linear Linear Linear Linear		0.25 Hour 2.00 Hour 16.00 Hour 100.00 Dolla	s s
	Factors 2 Hours 750 STRAIGHT TIME BASE Factors 16 Hours A5C SUPPLIES Factors 100 In supplies per PRV 1 - Minor Maintenance Packages Historical Data Source - The histor level based on FY99 line item to to Item Desc - Support to Minor Mainte Cost Element	T060 0000 ical datal technance Pa	NONE ta is free chnical second secon	ON CONTROL TECH/RISK REDUC TECH/RISK om the FY98 actua upport quotients.	OLIGI RED	KD10H 776 KD10H 776 K399S Buil	Complex Steel Complex Steel dina 776 Proies	Maintenance workers workers ct ort activit ment	y. These o	Linear Linear Linear Linear Costs have be	en factor	0.25 Hour 2.00 Hour 16.00 Hour 100.00 Dolla red to the 1.	s s s s s s s s s s s s s s s s s s s
BOE	Factors 2 Hours 750 STRAIGHT TIME BASE Factors 16 Hours A5C SUPPLIES Factors 100 In supplies per PRV 1 - Minor Maintenance Packages Historical Data Source - The histor level based on FY99 line item to to Item Desc - Support to Minor Mainte Cost Element 750 STRAIGHT TIME BASE	T060 0000 ical datal technance Pa	NONE ta is free chnical second secon	ON CONTROL TECH/RISK REDUC TECH/RISK om the FY98 actua upport quotients.	OLIGI RED	KD10H 776 KD10H 776 K399S Buil	Complex Steel Complex Steel ding 776 Project	Maintenance workers workers ct ort activit ment	y. These o	Linear Linear Linear Linear Losts have be	en factor	0.25 Hour 2.00 Hour 16.00 Hour 100.00 Dolla	s s s s s s s s s s s s s s s s s s s
BOE	Factors 2 Hours 750 STRAIGHT TIME BASE Factors 16 Hours A5C SUPPLIES Factors 100 In supplies per PRV 1 - Minor Maintenance Packages Historical Data Source - The histor level based on FY99 line item to to Item Desc - Support to Minor Mainte Cost Element 750 STRAIGHT TIME BASE Factors 1.6 Hours	T060 0000 ical datal technance Pa	D&D HAZ NONE ta is frechnical strackages	ON CONTROL TECHN EREDUC TECH/RISK om the FY98 actua upport quotients. Skill CIANS	OLIGI RED	KD10H 776 KD10H 776 K399S Buil	Complex Steel Complex Steel Complex Steel Complex Steel Complex Steel Complex Steel	Maintenance workers workers ct ort activit ment	y. These o	Linear Linear Linear Linear Costs have be Curve Linear	en factor	0.25 Hour 2.00 Hour 16.00 Hour 100.00 Dolla red to the 1. Duantity Un 1.60 Hour	s s s s s s s s s s s s s s s s s s s
BOE	Factors 2 Hours 750 STRAIGHT TIME BASE Factors 16 Hours A5C SUPPLIES Factors 100 In supplies per PRV 1 - Minor Maintenance Packages Historical Data Source - The histor level based on FY99 line item to to Item Desc - Support to Minor Mainte Cost Element 750 STRAIGHT TIME BASE Factors 1.6 Hours 750 STRAIGHT TIME BASE	T060 0000 ical datal technance Pa	D&D HAZ NONE ta is frechnical strackages	ON CONTROL TECH/RISK REDUC TECH/RISK om the FY98 actua upport quotients.	OLIGI RED	KD10H 776 KD10H 776 K399S Buil	Complex Steel Complex Steel Complex Steel Complex Steel Complex Steel Complex Steel	Maintenance workers workers ct ort activit ment	y. These o	Linear Linear Linear Linear Costs have be	en factor	0.25 Hour 2.00 Hour 16.00 Hour 100.00 Dolla red to the 1.	s s s s s s s s s s s s s s s s s s s
BOE	Factors 2 Hours 750 STRAIGHT TIME BASE Factors 16 Hours A5C SUPPLIES Factors 100 In supplies per PRV 1 - Minor Maintenance Packages Historical Data Source - The histor level based on FY99 line item to to Item Desc - Support to Minor Mainte Cost Element 750 STRAIGHT TIME BASE Factors 1.6 Hours 750 STRAIGHT TIME BASE Factors 0.5 Hours	T060 0000 ical datal tecl nance Po C020	D&D HAZ NONE ta is frechnical seackages ELECTRIC	ON CONTROL TECHN REDUC TECH/RISK om the FY98 actua upport quotients. Skill CIANS MENTAL ENGINEERS	OLIGI RED al cos	KD10H 776 KD10H 776 K399S Builts for tech	Complex Steel Complex Steel ding 776 Project anical support Complex Steel	Maintenance lworkers lworkers ct port activit ment lworkers	y. These o	Linear Linear Linear Linear Costs have be Curve Linear Linear	en factor	0.25 Hour 2.00 Hour 16.00 Hour 100.00 Dolla red to the 1. 2.00 Hour 0.50 Hour	s s s s s s s s s s s s s s s s s s s
BOE	Factors 2 Hours 750 STRAIGHT TIME BASE Factors 16 Hours A5C SUPPLIES Factors 100 In supplies per PRV 1 - Minor Maintenance Packages Historical Data Source - The histor level based on FY99 line item to to Item Desc - Support to Minor Mainte Cost Element 750 STRAIGHT TIME BASE Factors 1.6 Hours 750 STRAIGHT TIME BASE Factors 0.5 Hours 750 STRAIGHT TIME BASE	T060 0000 ical datal tecl nance Po C020	D&D HAZ NONE ta is frechnical seackages ELECTRIC	ON CONTROL TECHN EREDUC TECH/RISK om the FY98 actua upport quotients. Skill CIANS	OLIGI RED al cos	KD10H 776 KD10H 776 K399S Builts for tech	Complex Steel Complex Steel Complex Steel Complex Steel Complex Steel Complex Steel	Maintenance lworkers lworkers ct port activit ment lworkers	y. These o	Linear Linear Linear Linear Costs have be Curve Linear	en factor	0.25 Hour 2.00 Hour 16.00 Hour 100.00 Dolla red to the 1. Duantity Un 1.60 Hour	s s s s s s s s s s s s s s s s s s s
BOE	Factors 2 Hours 750 STRAIGHT TIME BASE Factors 16 Hours A5C SUPPLIES Factors 100 In supplies per PRV 1 - Minor Maintenance Packages Historical Data Source - The histor level based on FY99 line item to to Item Desc - Support to Minor Mainte Cost Element 750 STRAIGHT TIME BASE Factors 1.6 Hours 750 STRAIGHT TIME BASE Factors 0.5 Hours	T060 0000 ical datal tecl nance Pi C020 E050	D&D HAZ NONE Ita is from the character of the character	ON CONTROL TECHN REDUC TECH/RISK om the FY98 actua upport quotients. Skill CIANS MENTAL ENGINEERS	OLIGI RED al cos	KD10H 776 KD10H 776 K399S Buil ts for tech KD10H 776 R100S RM KD10H 776	Complex Steel	Maintenance workers workers ct crt activit ment workers workers	y. These o	Linear Linear Linear Linear Costs have be Curve Linear Linear	en factor	0.25 Hour 2.00 Hour 16.00 Hour 100.00 Dolla red to the 1. 2.00 Hour 0.50 Hour	s s s s s s s s s s s s s s s s s s s
BOE	Factors 2 Hours 750 STRAIGHT TIME BASE Factors 16 Hours A5C SUPPLIES Factors 100 In supplies per PRV 1 - Minor Maintenance Packages Historical Data Source - The histor level based on FY99 line item to to Item Desc - Support to Minor Mainte Cost Element 750 STRAIGHT TIME BASE Factors 1.6 Hours 750 STRAIGHT TIME BASE Factors 0.5 Hours 750 STRAIGHT TIME BASE Factors 1.5 Hours	T060 0000 ical datal tecl nance Pi C020 E050	D&D HAZ NONE Ita is from the character of the character	ON CONTROL TECHN REDUC TECH / RISK om the FY98 actual apport quotients. Skill CIANS IMENTAL ENGINEERS ON CONTROL TECHN	OLIGI RED al cos	KD10H 776 KD10H 776 K399S Buil ts for tech KD10H 776 R100S RM KD10H 776	Complex Steel	Maintenance workers workers ct crt activit ment workers workers	y. These o	Linear Linear Linear Linear Costs have be Curve Linear Linear Linear	en factor	0.25 Hour 2.00 Hour 16.00 Hour 100.00 Dolla red to the 1. Duantity Un 1.60 Hour 0.50 Hour 0.80 Hour	s s s s s s s s s s s s s s s s s s s
BOE	Factors 2 Hours 750 STRAIGHT TIME BASE Factors 16 Hours A5C SUPPLIES Factors 100 In supplies per PRV 1 - Minor Maintenance Packages Historical Data Source - The histor level based on FY99 line item to to Item Desc - Support to Minor Mainte Cost Element 750 STRAIGHT TIME BASE Factors 1.6 Hours 750 STRAIGHT TIME BASE Factors 0.5 Hours 750 STRAIGHT TIME BASE Factors 1.5 Hours 750 STRAIGHT TIME BASE Factors 1.5 Hours 750 STRAIGHT TIME BASE	T060 0000 ical datal technance Policy C020 E050 T060	D&D HAZ NONE Ita is from the control of the contr	ON CONTROL TECHN REDUC TECH / RISK om the FY98 actual apport quotients. Skill CIANS IMENTAL ENGINEERS ON CONTROL TECHN	OLIGI RED al cos	KD10H 776 KD10H 776 K399S Buil ts for tech KD10H 776 R100S RM KD10H 776	Complex Steel	Maintenance Ilworkers Ilworkers ct ct ment Ilworkers Ilworkers Ilworkers	y. These o	Linear Linear Linear Linear Costs have be Curve Linear Linear Linear	en factor	0.25 Hour 2.00 Hour 16.00 Hour 100.00 Dolla red to the 1. Ouantity	s s s s s s s s s s s s s s s s s s s

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WBS No: 1DAB02 Baseline Devl Proiect **Rocky Flats Closure Project** 1DF0203R00 1DAB Activity ID: WBS Filter **Baseline Cost and Basis of Estimate** Activity Filter Starts In FY 750 STRAIGHT TIME BASE T060 D&D HAZ REDUC TECH / RISK RED | KD10H | 776 Complex Steelworkers 0.40 Hours Linear 0.4 Hours T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers 1.60 Hours 750 STRAIGHT TIME BASE Linear 1.6 Hours 0.80 Hours 750 STRAIGHT TIME BASE T060 D&D HAZ REDUC TECH / RISK RED | KD10H | 776 Complex Steelworkers Linear Factors 0.8 Hours A57 LATA P070 COST ESTIMATORS PLANNERS AN K399S Building 776 Project 30.00 Dollars Linear Factors 30 Dollars A5C SUPPLIES 0000 NONE K399S Building 776 Project 32.55 Dollars Linear Factors 32.55 Dollars Line Item SYS - Contingency And Escalation BOE Resources Cost Element Skill Department Curve **Ouantity** Units CON CONTINGENCY 0000 NONE ZDEPT No Department Linear 58,984,84 Dollars Factors 58984.8 Dollars

Factors 22631.3 Dollars

0000 NONE

Activity ID: 1DXXXF2C00 Description: B776/777 Landlord - Corrective Maintenance End Cost Risk 2 Schedule Risk Total Prime Line Item Description Quantity Units BOELabor Labor Hours Labor Cost Materials/ Sub | Contingency Burden Cost Total Cost Type Hours/Unit **Total Total** Cost & Escalation Cost C01 Modification Packages 3.95 Mod Pkas HC 235 929 20.543 24.186 44.730 5.793 50.523 C02 SWP Packages 23.68 SWP Pkgs HC 102 2.424 52.252 32.550 14.735 99.537 0 84.802 C03 Level of Effort Packages 26.32 LOE Pkgs HC 33 868 18.038 8.700 26.738 5.087 31.825 0 IWCP Pkgs (Davis Bacon Covered) 3.29 IWCP Pkgs HC 96 7.418 2.092 187.141 C04 316 177.632 0 185.049 C05 Maintenance Infrastructure 0.66 FY HC 5.400 3.553 93.186 75.493 0 168.679 26.278 194.957 SYS Contingency And Escalation 1.00 ea FF 0 0 80.376 80.376 0 80.376 0 Total for Activity 1DXXXF2C00: 8.090 191.437 590.375 53.985 318.561 80.376 644.360

Line Item C01 - Modification Packages

ESC ESCALATION

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

ZDEPT No Department

Item Desc - Repairs to VSS/Non-VSS systems that cannot be accomplished using a standard work package (SWP). This work requires engineering review example: Work requiring breech of Zone 1 containment. (each)

Resources

WOIK	ork requiring breech or some reconcurrence. (each)									
s	Cost Element		Skill		Department	Curve	Quantity Units	1		
750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	43,20 Hours			
Factors	36 Hours		1.2 20% forJHA and walkdowns	i .						
750	STRAIGHT TIME BASE	E050	ENVIRONMENTAL ENGINEERS	R100S	RMRS Salaried	Linear	0.60 Hours			
Factors	0.5 Hours		1.2 20% forJHA and walkdowns				, , , , , , , , , , , , , , , , , , , ,			
750	STRAIGHT TIME BASE	P090	INDUSTRIAL HYGIENISTS	R100S	RMRS Salaried	Linear	12.00 Hours			
Factors	10 Hours		1.2 20% forJHA and walkdowns				, , , , , , , , , , , , , , , , , , , ,			
750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	48.00 Hours			
Factors	40 Hours		1.2 20% forJHA and walkdowns	1			1			
750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	43.20 Hours			
Factors	36 Hours		1.2 20% forJHA and walkdowns	1			1			
750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	21.60 Hours			
Factors	18 Hours		1.2 20% forJHA and walkdowns	ì			T			
750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	21.60 Hours			
Factors	18 Hours		1.2 20% forJHA and walkdowns	1			1			
750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	21.60 Hours			
Factors	18 Hours		1.2 20% forJHA and walkdowns	;			T			
750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	10.80 Hours			
Factors	9 Hours		1.2 20% forJHA and walkdowns	;						

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22.631.31 Dollars

Linear

WBS No: 1DAB02 Rocky Flats Closure Project Project Baseline Devl
Activity ID: 1DXXXF2C00 Baseline Cost and Basis of Estimate UNBS Filter 1DAB

	Duscinic Gost ai	Act	ivity Filter *	Starts In FY *
751 OVERTIME BASE & PRE.	C020 ELECTRICIANS	KD10H 776 Complex Steelworkers	Linear	2.59 Hours
Factors 2.16 Hours	1.2 20% forJHA and walkdowns			
751 OVERTIME BASE & PRE.	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	2.88 Hours
Factors 2.4 Hours	1.2 20% forJHA and walkdowns			
751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	1.30 Hours
Factors 1.08 Hours	1.2 20% forJHA and walkdowns	3		
751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	2.59 Hours
Factors 2.16 Hours	1.2 20% forJHA and walkdowns	3		
751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	0.67 Hours
Factors 0.56 Hours	1.2 20% forJHA and walkdowns	3		
751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	1.30 Hours
Factors 1.08 Hours	1.2 20% forJHA and walkdowns	3		
751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	1.30 Hours
Factors 1.08 Hours	1.2 20% forJHA and walkdowns	3		
A57 LATA	E110 QUALITY CONTROL ENGINEERS	K399S Building 776 Project	Linear	576.00 Dollars
Factors 480 Dollars		1.2 20% forJHA and walke	owns	
A57 LATA	P070 COST ESTIMATORS PLANNERS AN	K399S Building 776 Project	Linear	3.052.80 Dollars
Factors 2544 Dollars		1.2 20% forJHA and walkd	owns	
A5C SUPPLIES	0000 NONE	K399S Building 776 Project	Linear	2.498.40 Dollars
Factors 2082 Dollars		1.2 20% forJHA and walke	lowns	

Line Item C02 - SWP Packages

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Support to SWP Maintenance Packages (each)

Resources

es		Cost Element	Skill		Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	C020 ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	25.20 H	lours
I	actors	21 Hours	1.2 20% forJHA and walkdown	S				
	750	STRAIGHT TIME BASE	E050 ENVIRONMENTAL ENGINEERS	R100S	RMRS Salaried	Linear	0.60	lours
I	Factors	0.5 Hours	1.2 20% forJHA and walkdown	S			T	
	750	STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	10.80 H	lours
I	Factors	9 Hours	1.2 20% forJHA and walkdown				T	
	750	STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	12.00 F	Hours
I	Factors	10 Hours	1.2 20% forJHA and walkdown					
L	750	STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED		776 Complex Steelworkers	Linear	12.00 H	Hours
I	Factors	10 Hours	1.2 20% forJHA and walkdown					
L	750	STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED		776 Complex Steelworkers	Linear	25.20 H	Hours
I	Factors	21 Hours	1.2 20% forJHA and walkdown					
L	750	STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED		776 Complex Steelworkers	Linear	10.80 F	Hours
I	actors	9 Hours	1.2 20% forJHA and walkdown		1			
	751	OVERTIME BASE & PRE.	C020 ELECTRICIANS		776 Complex Steelworkers	Linear	1.51 H	lours
I	actors	1.26 Hours	1.2 20% forJHA and walkdown		1			
L	751	OVERTIME BASE & PRE.	T050 RADIATION CONTROL TECHNOLIGI		776 Complex Steelworkers	Linear	0.65	lours
I	Factors	0.54 Hours	1.2 20% forJHA and walkdown		T			
L	751	OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED		776 Complex Steelworkers	Linear	0.72 H	lours
I	actors	0.6 hour OT per package	1.2 20% forJHA and walkdown					
L	751	OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED		776 Complex Steelworkers	Linear	1.51 H	lours
I	actors		1.2 20% forJHA and walkdown					
L	751	OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED		1776 Complex Steelworkers	Linear	0.65 H	lours
I	actors	0.54 Hours	1.2 20% forJHA and walkdown					
L	751_	OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED		1776 Complex Steelworkers	Linear	0.72 H	lours
<u> </u>	Factors	0.6 Hours	1.2 20% forJHA and walkdown	S				

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WBS No: 1DAB02 Baseline Devl Proiect Rocky Flats Closure Project 1DXXXF2C00 1DAB Activity ID: WBS Filter **Baseline Cost and Basis of Estimate** Activity Filter Starts In FY A57 LATA P070 COST ESTIMATORS PLANNERS AN K399S Building 776 Project 43.20 Dollars Linear Factors 36 Dollars 20% forJHA and walkdowns P070 COST ESTIMATORS PLANNERS AN 719.14 Dollars A57 LATA K399S Building 776 Project Linear 599.283 Dollars 20% for JHA and walkdowns A5C SUPPLIES 0000 NONE K399S Building 776 Project Linear 612.00 Dollars Factors 510 20% forJHA and walkdowns Line Item C03 - Level of Effort Packages Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item BOE level based on FY99 line item to total technical support quotients. Item Desc - Support to Level of Effort Packages (each) Resources Cost Element Department Curve Units KD10H 776 Complex Steelworkers 750 STRAIGHT TIME BASE C020 ELECTRICIANS Linear 8.64 Hours 7.2 Hours 20% forJHA and walkdowns 750 STRAIGHT TIME BASE T050 RADIATION CONTROL TECHNOLIGI | KD10H | 776 Complex Steelworkers Linear 0.60 Hours 0.5 Hours 20% forJHA and walkdowns 750 STRAIGHT TIME BASE T060 D&D HAZ REDUC TECH / RISK RED | KD10H | 776 Complex Steelworkers Linear 4.32 Hours 20% forJHA and walkdowns Factors 3.6 Hours 750 STRAIGHT TIME BASE T060 D&D HAZ REDUC TECH / RISK RED | KD10H | 776 Complex Steelworkers 4.32 Hours 3.6 Hours 20% forJHA and walkdowns Factors 750 STRAIGHT TIME BASE T060 D&D HAZ REDUC TECH / RISK RED | KD10H | 776 Complex Steelworkers 4.32 Hours Linear 3.6 Hours 20% forJHA and walkdowns 750 STRAIGHT TIME BASE D&D HAZ REDUC TECH / RISK RED | KD10H | 776 Complex Steelworkers 8.64 Hours Linear 7.2 Hours 20% for JHA and walkdowns Factors 750 STRAIGHT TIME BASE T060 D&D HAZ REDUC TECH / RISK RED | KD10H | 776 Complex Steelworkers Linear 2.16 Hours 20% forJHA and walkdowns Factors 1.8 Hours A57 LATA P070 COST ESTIMATORS PLANNERS AN K399S Building 776 Project 144.00 Dollars Linear Factors 120 Dollars 1.2 20% forJHA and walkdowns A5C SUPPLIES 0000 NONE 186 60 Dollars K399S Building 776 Project Linear Factors 155.5 Dollars 20% forJHA and walkdowns 1.2 Line Item C04 - IWCP Pkgs (Davis Bacon Covered) Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item BOE level based on FY99 line item to total technical support quotients. Item Desc - IWCP Packages Davis Bacon Covered (each) Cost Element Skill Curve **Ouantity** Units Resources P170 OTHER ADMINISTRATIVE & PROFE | R100S | RMRS Salaried 750 STRAIGHT TIME BASE Linear 48.00 Hours 20% for JHA and walkdowns 40 hours per package T050 RADIATION CONTROL TECHNOLIGI | KD10H | 776 Complex Steelworkers 750 STRAIGHT TIME BASE Linear 48.00 Hours 40 Hours 20% forJHA and walkdowns Factors 1.2 A5C SUPPLIES 0000 NONE 6.000.00 Dollars K399S Building 776 Project Linear 5000 Dollars in supplies for each DB IWCP 20% forJHA and walkdowns A5H SUBCONTRACTED SRVS 0000 NONE K399S Building 776 Project 48 000 00 Dollars Linear 40000 dollars 20% forJHA and walkdowns Factors Line Item C05 - Maintenance Infrastructure Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item BOE level based on FY99 line item to total technical support quotients. Item Desc - Maintenance Infrastructure contains management and oversight scope that can not be reasonably or effectively allocated to specific maintenance packages. Resources Cost Element Skill Department Curve Ouantity Units 750 STRAIGHT TIME BASE P170 OTHER ADMINISTRATIVE & PROFE | R100S | RMRS Salaried 1.800.00 Hours Linear Senior specialist - Vanzant 1800 Hours

 WBS No:
 1DAB02
 Rocky Flats Closure Project
 Project
 Baseline Devl

 Activity ID:
 1DXXXF2C00
 Baseline Cost and Basis of Estimate
 WBS Filter
 1DAB

		*	Starts In FY *					
750	STRAIGHT TIME BASE	P170	OTHER A	DMINISTRATIVE & PROFE	R100S	RMRS Salaried	Linear	3.600.00 Hours
Factors	 Pflipsen, Knapp 	-	1800	Hours				•
A5C	SUPPLIES	0000	NONE		K399S	Building 776 Project	Linear	114.750.00 Dollars

Factors 114750 Dollars

Line Item SYS - Contingency And Escalation

BOE

Resources

es		Cost Element		Skill		Department	Curve	Ouantity	Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	26.224.23	Dollars
	Factors	26224.2 Dollars							
		ESCALATION	0000	NONE	7DFPT	No Department	Linear	54 151 63	Dollars

Factors 54151.6 Dollars

Activity ID: 1DXXXFP00 Description: B776/777 Landlord - Preventative Maint end

Cost Risk 2 Schedule Risk 3

ACTIVITY ID: 1D	Description: B116/111 Land	ilora - Preventative iviair	it end					Cost Risk	2 Schedule F	usk 3		
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	0 7	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
P01	PMO's Carpenter Support	126.32	2 PMO	HC	2	253	5.169	0	0	5.169	1.458	6.626
P01A	PMO's Electrician Support	236.84	1 PMO	HC	2	474	10.246	0	0	10.246	2.889	13.135
P01B	PMO's Machinist Support	342.11	1 PMO	HC	2	684	13.999	0	0	13.999	3.948	17.947
P01C	PMO's SSOC Pipefitter Support	32.89	PMO	HC	9	296	6.057	0	0	6.057	1.708	7.765
P01D	PMO's Alarms Support	65.79	PMO	HC	9	592	12.807	0	0	12.807	3.612	16.419
P01E	PMO's Site Services Pipefitter Support	5.92	PMO	HC	16	95	1.938	0	0	1.938	547	2.485
P01G	Supplies	0.66	6 each	HC	0	0	0	7.112	0	7.112	0	7.112
P02A	UPS / Elevator Maintenance	0.66	6 ea	VQ	64	42	911	5.855	0	6.766	257	7.023
P02B	Maintenance Services	0.66	each	HC	0	0	0	13.566	0	13.566	0	13.566
P02C	Refrigeration	7.89	each	HC	16	126	2.584	0	0	2.584	729	3.313
P03	Calibrations	0.66	6 ea	HC	1.869	1.230	29.635	0	0	29.635	8.357	37.992
SYS	Contingency And Escalation	1.00) ea	EE	0	0	0	0	19.009	19.009	0	19.009
		Total for Activ	ity 1DXXXFF	P00:		3.791	83.346	26.533	19.009	128.888	23.504	152.392

Line Item P01 - PMO's Carpenter Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Carpenter Support to Preventative Mtce Orders (Perform routine inspections of hoist/rigging each month and an annual inspection - which serves as a monthly - 16 hoists) (each)

Resources

Cost Element Skill Department Curve Quantity Units
T50 STRAIGHT TIME BASE T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers Linear 2.00 Hours

Factors 2 Hours/ea

Line Item P01A - PMO's Electrician Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Electrician Support to Preventative Mtce Orders (Perform routine, monthly inspections of Emergency lighting, batteries, fork truck, fork truck batteries, Outside lighting).

Resources

ırces	Cost Element Skill			Skill		Department	Curve	Quantity	Units
	750 STRAIGHT TIME BASE		C020	ELECTRICIANS	C211S	Electrical Maintenance	Linear	2.00	Hours

Factors 2 Hours/ea

Line Item P01B - PMO's Machinist Support

BOE H

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Machinist Support to Preventative Mtce Orders - Perform routine, monthly inspections of HVAC equipment, fan belt inspections and vibration analysis.

Resources Cost Element Skill Department Curve Quantity Units

Proiect Baseline Devl Rocky Flats Closure Project WBS Filter 1DAB

Starts In FY

Linear

2.00 Hours

Baseline Cost and Basis of Estimate Activity Filter

750 STRAIGHT TIME BASE T060 D&D HAZ REDUC TECH / RISK RED | KD10H | 776 Complex Steelworkers

Factors 2 Hours/ea

Line Item P01C - PMO's SSOC Pipefitter Support BOE

1DAB02

1DXXXFP00

WBS No:

Activity ID:

BOE

BOE

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Pipefitter Support to Preventative Mtce Orders -Perform routine quarterly and annual inspections of Anti freeze loops (8), and annual fire suppression systems (8). (each)

Resources Cost Element Skill Department Curve Units STRAIGHT TIME BASE T060 D&D HAZ REDUC TECH / RISK RED | KD10H | 776 Complex Steelworkers 750 9.00 Hours Linear

Factors 9 Hours/ea

Line Item P01D - PMO's Alarms Support

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Alarms Support to Preventative Mtce Orders - Perform routine monthly, quarterly and annual inspections of Fire panels, LSDW batteries.

Units. Skill Resources Cost Element Department Curve 750 STRAIGHT TIME BASE C020 ELECTRICIANS KD10H 776 Complex Steelworkers Linear 9.00 Hours

Factors 9 Hours/ea

Line Item P01E - PMO's Site Services Pipefitter Support

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Pipefitter Support to Preventative Mtce Orders -Perform annual inspections of Backflow preventors (9).

Resources Cost Element Units T060 D&D HAZ REDUC TECH / RISK RED | KD10H | 776 Complex Steelworkers 750 STRAIGHT TIME BASE 16.00 Hours

Factors Hours/ea

Line Item P01G - Supplies

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Supplies required for Preventative Mtce Orders.

Resources Cost Element Department Curve Quantity Units A5C SUPPLIES 0000 NONE K399S Building 776 Project Linear 10.810.00 Dollars

Factors 10810 Dollars

Line Item P02A - UPS / Elevator Maintenance

Vendor Name - Certified Elevator Co. BOE

Vendor Ouote - 8,700 (\$5,200 elevator, \$3,500 UPS inspection)

Quote Received by - Procurement

Item being quoted - Elevator and UPS Inspections

Other Info - This contract was in place for FY-98

Availability - Other support costs are based on Estimator Judgement

Units Resources Cost Element Department Curve 750 STRAIGHT TIME BASE C020 **ELECTRICIANS** C211S Electrical Maintenance Linear 64.00 Hours 2 Inspections Hours Factors A5C SUPPLIES 0000 NONE K399S Building 776 Project Linear 200.00 Dollars Factors 200 Dollars in supplies A5H SUBCONTRACTED SRVS 0000 NONE K399S Building 776 Project 5.200.00 Dollars Linear Factors Semiannual Inspection of elevator 2600 dollars A5H SUBCONTRACTED SRVS 3.500.00 Dollars 0000 NONE K399S Building 776 Project Linear

Annual inspection of UPS 3500 Dollars Factors

Line Item P02B - Maintenance Services

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item BOE level based on FY99 line item to total technical support quotients.

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WBS No: 1DAB02 1DXXXFP00 Activity ID:

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter Baseline Devl 1DAB

Starts In FY

Item Desc - Maintenance Services performed in support of B776/777 for inspection of chillers (performed by York International on a service contract), air dryers and compressors (both performed by Cate Colorado Equipment Co.) Supplies are reimbursable costs to be provided by the subcontractor. They are being planned as A5C to differentiate between service costs and forecast supplies.

Resource

ces		Cost Element	Skill			Department	Curve	Quantity	Units	
	A5C	SUPPLIES	0000	NONE		C210S	Facilities Mgmt & Maintenance	Linear	2.500.00	Dollars
	Factors	2500 Dollars in supplies for all								
	A5H	SUBCONTRACTED SRVS	0000	NONE		C210S	Facilities Mgmt & Maintenance	Linear	8.356.00	Dollars
	Factors	4 Air Compressors		2089	Dollars per inspection perfor	med by				
	A5H	SUBCONTRACTED SRVS	0000	NONE		C210S	Facilities Mgmt & Maintenance	Linear	5.586.00	Dollars
	Factors	2 Chillers		2793	Dollars per Chiller performe	d by York				
	A5H	SUBCONTRACTED SRVS	0000	NONE		C210S	Facilities Momt & Maintenance	Linear	4.178.00	Dollars
	Factors	2 Air Dryers		2089	Dollars per inspection					

Line Item P02C - Refrigeration

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Refrigeration Maintenance Support (each A5H is "Ingersoll-Rand".

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	16.00	Hours

Factors 16 Hours/ea

Line Item P03 - Calibrations

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients.

Item Desc - Calibration Support to Preventative Mtce Orders - Calibration of installed instrumentation and M & TE are funded in this work package to ensure an accurate indication of building conditions and for performance assurance during maintenance activities.

Calibrations include Zone 1 Utility Loops, Magahelics on Gloveboxes, and controllers on the HVAC system and other safety related calibrations.

Resources

Cost Element	Skill	Department	Curve	Ouantity Units
750 STRAIGHT TIME BASE	M010 FOREMEN / TEAM LEADS / GROUP	C100S Closure Site Services	Linear	225.00 Hours
Factors 225 Hours				
750 STRAIGHT TIME BASE	P170 OTHER ADMINISTRATIVE & PROFE	C100S Closure Site Services	Linear	200.00 Hours
Factors 200 Hours				
750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIC	KD10H 776 Complex Steelworkers	Linear	100.00 Hours
Factors 100 Hours				
750 STRAIGHT TIME BASE	T070 MAINT, TECHS, (INSTRUMENT TEC	KD10H 776 Complex Steelworkers	Linear	1.215.00 Hours
Factors 1215 Hours				
751 OVERTIME BASE & PRE.	T050 RADIATION CONTROL TECHNOLIC	GI KD10H 776 Complex Steelworkers	Linear	25.00 Hours
Factors 25 Hours				
751 OVERTIME BASE & PRE.	T070 MAINT, TECHS, (INSTRUMENT TEC	C KD10H 776 Complex Steelworkers	Linear	104.00 Hours
Factors 104 Hours				

Line Item SYS - Contingency And Escalation

BOE

Resources

Activity ID: 1DXXXFR00

es	Cost Element		Skill			Department	Curve	<i>Ouantity</i>	Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	6.202.06	Dollars
_	Factors	6202.06 Dollars							
	FSC	ESCALATION	0000	NONE	ZDFPT	No Department	Linear	12.806.92	Dollars

Factors 12806.9 Dollars

4	Activity ID: 1DXX	(XFR00 Description: B776/777 Landlord - Routine	: Maintenance end					Cost Risk 2 Schedule Risk 3					
	Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
					Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
	M01	Replace Pressure Release Valves	3.29	Valves	HC	18	60	1.235	329	0	1.564	348	1.912

WBS No: 1DAB02 Baseline Devl Proiect **Rocky Flats Closure Project** 1DXXXFR00 1DAB Activity ID: WBS Filter **Baseline Cost and Basis of Estimate** Activity Filter Starts In FY 657.89 Maint Pkgs HC 31.639 R01 Minor Maintenance Packages 5.263 112.195 41.151 153.347 184.986 SYS Contingency And Escalation 1.00 ea EE 26.636 26.636 26.636 Total for Activity 1DXXXFR00: 5.323 113.430 41.480 26.636 181.546 31.987 213.534 Line Item M01 - Replace Pressure Release Valves Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. Item Desc - Pressure Release Valve Replacement -Replace existing PRV's on the plant air/instrument air system and steam system Units Resources Cost Element Quantity 750 STRAIGHT TIME BASE P170 OTHER ADMINISTRATIVE & PROFE | C210S | Facilities Mgmt & Maintenance Linear 0.25 Hours 0.25 Hours T050 RADIATION CONTROL TECHNOLIGI | KD10H | 776 Complex Steelworkers 750 STRAIGHT TIME BASE Linear 2.00 Hours Hours T060 D&D HAZ REDUC TECH / RISK RED | KD10H | 776 Complex Steelworkers 16.00 Hours 750 STRAIGHT TIME BASE Linear Factors 16 Hours A5C SUPPLIES 0000 NONE 100.00 Dollars K399S Building 776 Project Linear Factors 100 In supplies per PRV Line Item R01 - Minor Maintenance Packages Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item BOE level based on FY99 line item to total technical support quotients. Item Desc - Support to Minor Maintenance Packages Units Resources Cost Element Department C020 ELECTRICIANS KD10H 776 Complex Steelworkers 750 STRAIGHT TIME BASE Linear 1.60 Hours 1.6 Hours 750 STRAIGHT TIME BASE E050 ENVIRONMENTAL ENGINEERS R100S RMRS Salaried 0.50 Hours Linear 0.5 Hours Factors 750 STRAIGHT TIME BASE T050 RADIATION CONTROL TECHNOLIGI KD10H 776 Complex Steelworkers 1.50 Hours Linear 1.5 Hours Factors 750 STRAIGHT TIME BASE T060 D&D HAZ REDUC TECH / RISK RED | KD10H | 776 Complex Steelworkers Linear 0.80 Hours 0.8 Hours T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers 0.80 Hours 750 STRAIGHT TIME BASE Linear 0.8 Hours 0.40 Hours 750 STRAIGHT TIME BASE T060 D&D HAZ REDUC TECH / RISK RED | KD10H | 776 Complex Steelworkers Linear Factors 0.4 Hours 750 STRAIGHT TIME BASE T060 D&D HAZ REDUC TECH / RISK RED | KD10H | 776 Complex Steelworkers Linear 1.60 Hours Factors 1.6 Hours 750 STRAIGHT TIME BASE T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers 0.80 Hours Linear 0.8 Hours Factors A57 LATA P070 COST ESTIMATORS PLANNERS AN K399S Building 776 Project 30.00 Dollars Linear 30 Dollars Factors 32 55 Dollars A5C SUPPLIES 0000 NONE K399S Building 776 Project Linear Factors 32.55 Dollars Line Item SYS - Contingency And Escalation BOE

CON	N CONTINGENCY	0000	NONE	ZDEPT No Department	Linear	8.690.42 Dollars
Factor	s 8690.42 Dollars					
ESC	ESCALATION	0000	NONE	ZDEPT No Department	Linear	17.945.24 Dollars
Factor	s 17945.2 Dollars					

WBS No: 1DAB03 Title: B776 Operations Technical Support

Activity ID: 1DB0300000 Description: FY-00 B776 Operations Technical Spt 4th Qtr Cost Risk 2 Schedule Risk 3

Skill

Resources

Cost Element

Curve

Department

Ouantity

Units

WBS No: 1DAB03 Activity ID: 1DB0300000

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter Baseline Devl

WBS Filter 1DAB
Activity Filter * Starts In FY

							Acti	ivity Filter *		St	arts In FY *	
Line Item	Description	Quantity	Units	BOE Type	Labor Hours/Unit	Labor Hours Total	Labor Cost Total	Materials/ Sub Cost	Contingency & Escalation	Total Prime Cost	Burden Cost	Total Cost
T02	Radiological Engineering	1.00	ea	HC	680	680	23.263	57.800		81.063	11.352	92.415
T03	Stepoff Pad	1.00	ea	Н	816	816	18.627	0	0	18.627	9.090	27.716
T04	Contamination Control	1.00	ea	Н	197	197	4.492	0	0	4.492	2.192	6.685
T05	Radiological Work Permit	1.00	ea	Н	748	748	16.368	0	0	16.368	7.988	24.356
T06	ALARA Committee	1.00	ea	HC	22	22	445	0	0	445	217	662
T07	Analytical Lab - DAC	3.200.00	each	Н	0	0	0	70.400	0	70.400	0	70.400
T08	Nuclear Safety Support	1.00	each	HC	0	0	0	231.200	0	231.200	0	231.200
T10	Electrical Engineering	1.00	ea	Н	0	0	0	95.263	0	95.263	0	95.263
T11	Mechanical Engineering	1.00	ea	HC	680	680	22.284	47.600	0	69.884	10.874	80.758
T13	Fire Protection Engineering	1.00	ea	HC	0	0	0	115.600	0	115.600	0	115.600
T14	Emergency Preparedness	1.00	ea	HC	52	52	1.069	38.000	0	39.069	522	39.591
T15	Procedures	1.00	ea	HC	0	0	0	71.400	0	71.400	0	71.400
T16	Criticality Engineering	1.00	ea	HC	0	0	0	57.800	0	57.800	0	57.800
T17	Plan of the Week/DOD	1.00	ea	HC	338	338	8.868	0	0	8.868	4.328	13.195
T19	Proiect Safety Officer	1.00	each	HC	0	0	0	57.800	0	57.800	0	57.800
T20	Plant Review Committee	1.00	each	HC	38	38	985	6.386	0	7.371	481	7.852
T21	Health Physics And Instrumentation	1.00	ea	Н	0	0	0	89.915	0	89.915	0	89.915
T22	Radiological Management	1.00	each	HC	1.857	1.857	52.606	25.000	0	77.606	25.672	103.277
T23	Criticality Safety Officer	1.00	ea	HC	650	650	28.126	0	0	28.126	13.725	41.851
T24	Occurrence Reporting	1.00	each	HC	325	325	8,527	0	0	8,527		12,688
T27	Chemical Control Officer	1.00	ea	HC	680	680	17,836	0	0	17,836	8,704	26,541
	Т	otal for Activi	ity 1DB0300	0000:		7,082	203,495	964,164	0	1,167,659	99,306	1,266,965

Line Item T02 - Radiological Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Provides support services for ALARA, IWCPs, Building Assessments, Operation Orders, Technical Bases Documents, Radiological Deficiency Reports, Radiological Work Permits, Device/Source Audit Deliverables, ALARA job reviews and property/waste release evaluation database maintenance and Radiation Protection Program maintenance.

Resources

es		Cost Element		Skill		Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	E130 OT	THER ENGINEERS	R100S	RMRS Salaried	Linear	680.00	Hours
	Factors	1 Radiological Safety Enginee	er 6	680 hours per vear					
	A5H	SUBCONTRACTED SRVS	E130 OT	THER ENGINEERS	K399S	Building 776 Project	Linear	57.800.00	Dollars
	Factors	1 Radiological Safety Engine	er Grube 6	680 hours per vear		85 dollars per hour			

Line Item T03 - Stepoff Pad

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity encompasses the radiological monitoring of personnel and equipment exiting the Radiological Controlled Areas. The proper release documentation of material and equipment leaving the radiological controlled areas is the responsibility of the set-off pad RCT. The step-off pad RCT responds to any contamination monitor alarm from personnel self-monitoring or personnel requesting help for self-monitoring. Equipment and personnel monitoring are required by the Site Radiological Control Manual and DOE Order 5400.5 to ensure the safety of the workers, the public and the environment. The step-off pad RCT also performance tests the instruments used at the step-off pad on a daily basis.

Resources

es			Cost Element			Skill			Department	Curve	Ouantity	Units
	750	STRAIGH	HT TIME BASE	T050	RADIATION	ON CONTROL TECHNOLIGI	KD10H	776 Cd	mplex Steelworkers	Linear	680.00	Hours
1	actors	1	RCT		680	hrs per dav				 		
	751	OVERTIN	ME BASE & PRE.	T050	RADIATION	ON CONTROL TECHNOLIGI	KD10H	776 Cd	mplex Steelworkers	 Linear	136.00	Hours
1	actors	680	Total ST hours		0.2	20% Over-Time		1	RCT			

Line Item T04 - Contamination Control

- - Titataniani Data Car

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

WBS No: 1DAB03 Activity ID: 1DB0300000

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect
WBS Filter
Activity Filter

Baseline Devl 1DAB

ilter * Starts In FY

Document - Rev 0.

Item Desc - Identification of contamination sources to prevent the spreading of contamination in controlled areas and individual exposures. Detection of contamination in cold areas; provision of technical information regarding the amount of contamination and the degree of risk in corrective actions. Response to SAAM alarms on off normal conditions, and response to loss of contamination control issues, i.e., Radiological contamination of gloves, booties, and personnel. Performance of pre-job surveys on misc. minor tasks to ensure the Radiological Work Permits are adequate to control the work performed.

Also, decontamination/contamination area rollback will be performed to increase work efficiency, reduce laundry costs, and minimize the generation of of radioactive waste. The process will include walls and floors, as well as all materials and equipment in the area to be downgraded, to be surveyed and/or decontaminated. A representative sample of rooms slated for decontamination includes: Rooms: 134E; 430; 463; 452; 131; 134; and 154A.

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	T050 RADIATION	N CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	164.00	Hours
	Factors	2 Hours/day	82	days remaining					
	751	OVERTIME BASE & PRE.	T050 RADIATION	N CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	32.80	Hours
	Factors	0.2 20% Overtime	164	Straight Time Hours		·			·

Line Item T05 - Radiological Work Permit

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document. - Rev 0.

Item Desc - Writing and distribution of Radiological Work Permits which define the safe radiological working parameters. This task includes maintenance of a filing system to control the number of RWPs released and tracks returns to the RWP office through a daily log. Archiving of expired Radiological Work Permits and their supporting documentation is also performed, as well as issuing and tracking the return of Electronic Pocket Dosimeters (EPD) and recording and tracking individual doses from EPDs. All radiological surveys are filed and archived.

Resources

es		Cost Element		Skill		Department	Curve	<i>Ouantity</i>	Units
	750 S	STRAIGHT TIME BASE	T050 RADIA	ATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	680.00	Hours
	Factors	1 RCT	680	Hours					
	751 C	OVERTIME BASE & PRE.	T050 RADIA	ATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	68.00	Hours
	Factors	0.1 10% Overtime	680	Straight Time Hours					

Line Item T06 - ALARA Committee

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - The ALARA Committee addresses radiological safety concerns and issues that have been identified by the building, programs, or an activity that was conducted. The Chairperson shall be the Operations/Facility Manager, or designee, and the committee shall consist of representatives from departments that support the area. The Committee performs evaluations to determine whether activities are being conducted in accordance with the ALARA Program and implementing procedures. Formulates and coordinates the implementation of the Project Area ALARA goals. Meets monthly on any actions taken to resolve radiological issues, noteworthy ALARA accomplishments, ALARA concerns, etc.. Generates a status report of items discussed and/or acted upon. This task includes walk-downs, meetings, reporting, etc..

Resources

es	Cost Element	Skill	Department	Curve	Quantity Units
	750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIC	GI KD10H 776 Complex Steelworkers	Linear	4.33 Hours
	Factors 1 hour per monthly meeting	, 1 RCT	12 months	0.3612 82/227 Davs	remaining
	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK REI	ND10H 776 Complex Steelworkers	Linear	8.67 Hours
	Factors 1 hour per monthly meeting	2 D&D Skilled	12 Months	0.3612 82/227 Davs	remaining
	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK REI	ND10H 776 Complex Steelworkers	Linear	8.67 Hours
	Factors 1 hours per monthly meeting	ı 2 HRT	12 months	0.3612 82/227 Days	remaining

Line Item T07 - Analytical Lab - DAC

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Analytical Lab Support includes Offsite Commercial Support, Hot/Mixed Lab Support, Sample Team Support, and Mobile Lab Support . These activites are described below:

DAC Analytical Support - Perform Gross Alpha analysis for the following items:

1) Gross Alpha (OS01-02)

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WBS No: 1DAB03 Proiect Baseline Devl Rocky Flats Closure Project Activity ID: 1DB0300000 WBS Filter 1DAB **Baseline Cost and Basis of Estimate** Activity Filter

- Radiological Screening (OS03-04)
- Gross Alpha/Beta (OSO5-17)
- Gross Alpha/Beta Air Filters (OS18-20)
- 5) Air Filter Loeading, Unloading, and Compositing (OS-21)

The type and quantity of the analysis performed is dependent on project customer needs as well as the laboratory capability and capacity.

Resources	

ces		Cost Element		Skill		Department	Curve	Ouantity	Units
	A5H	SUBCONTRACTED SRVS	0000	NONE	K267S	Analytical Laboratory Services	Linear	22.00	Dollars

22 dollars per DAC Sample Factors

Line Item T08 - Nuclear Safety Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This function is performed by Nuclear Safety Engineering which provides nuclear technical support, facility safety analysis, Unreviewed Safety Question Determination (USQD) of activities and documents submitted for review, participation in the Operational Review Committee (ORC) process to clarify and advise members on issues concerning USQDs, Safety Evaluation Screens (SESs), and Operational Safety Requirements/Technical Safety Requirements (OSR/TSR) page changes and guidance. Historically, three engineers have been required to perform this scope.

Resource

rces		Co	ost Element			Skill			Department		Curve	Quantity	Units	ı
	A52	TENERA		E080	NUCLEA	R (CRITICALITY) ENGINEER	K399S	Buildina	776 Proiect		Linear	231.200.00	Dollars	J
	Factors	1	Nuclear Safety Engineer Bo	ard,	85	dollars per hour		680	hours	4	personnel			

Line Item T10 - Electrical Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O

Item Desc - The Electrical Engineering group serves as Subject Matter Expert on all electrical power related equipment and systems; supports IWCP development; performs engineering operability evaluations on an as-needed basis; supports authorization basis activities; and serves as liaison/Point of Contact with RMRS Central Engineering on building engineering matters. Additionally, this position will provide engineering support for procedure development, system walkdown and one-line drawing development, labeling of key components, and development of system descriptions.

Resources

s	C	ost Element			Skill			Department		Curve	Ouantity	Units
A52	TENERA		E040	ELECTRIC	CAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	29.473.92	Dollars
Factors	1	Electrical Engineer All of th	ese are	12 0.3612	packages per vear 82/227 Davs remaining		80	hours per design modification	85	dollars per hou	•	
A52	TENERA		E040	ELECTRIC	CAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	12.894.84	Dollars
Factors	1	Electrical engineers		12 0.3612	EOEs per vear 82/227 Davs remaining		35	hours per Engineering Operability	85	dollars per hou	·	
A52	TENERA		E040	ELECTRIC	CAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	19.158.05	Dollars
Factors	2	LO/TOs per week		6 0.3612	hours support for Lockout/Ta 82/227 Days remaining	agout	52	Weeks per vear	85	dollars per hou	•	
A52	TENERA		E040	ELECTRIC	CAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	18.421.20	Dollars
Factors	1	Electrical Engineer		15 0.3612	ESPs per vear 82/227 Davs remaining		40	hours per Enaineerina Support	85	dollars per hou	•	
A57	LATA		E040	ELECTRIC	CAL ENGINEERS	K399S	Buildina	776 Project		Linear	10.113.60	Dollars
Factors	70 0.3612	dollars per hour 82/227 Davs remaining		10	hours support to Standard V	Vork	40	SWPs requiring EE support		·		
A57	LATA		E040	ELECTRIC	CAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	5.201.28	Dollars
Factors	1	electrical engineer		10 0.3612	calculation in support of vari 82/227 Days remaining	ous	24	hours per electrical calculation	60	dollars per hou	•	

Line Item T11 - Mechanical Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - The Mechanical Engineering group serves as subject matter expert on all mechanical equipment related systems. Additionally, this discipline provides engineering support for procedure development, system walkdowns and one-line drawing development, labeling of key components, and development of

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Starts In FY

1DAB03 Baseline Devl Proiect Rocky Flats Closure Project 1DB0300000 WBS Filter **Baseline Cost and Basis of Estimate**

WBS No:

BOE

Activity ID: 1DAB Activity Filter Starts In FY system descriptions. Resources Cost Element Skill Department Curve Units 750 STRAIGHT TIME BASE E070 MECHANICAL ENGINEERS R100S RMRS Salaried Linear 680.00 Hours Mechanical Engineer Bentzinger 680 **Factors** Hours per vear A57 LATA E070 MECHANICAL ENGINEERS K399S Building 776 Project 47.600.00 Dollars Factors 70 dollars per hour Barr Mechanical Engineers 680 hours each per vear Line Item T13 - Fire Protection Engineering Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item BOE level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0. Item Desc - Fire Protection Engineering provides technical support and fire hazards analysis for the building. **Units** Resources Cost Element Skill Department Curve **Ouantity** A5H SUBCONTRACTED SRVS E130 OTHER ENGINEERS K252S Engineering 115.600.00 Dollars Linear Factors 85 dollars per hour Lanning hours 2 FPF Line Item T14 - Emergency Preparedness Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item BOE level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0. Item Desc - This function includes administering the implementation of the RFETS Emergency Preparedness Program for the protection of personnel, the public, and the environment during emergency response; development and implemention of the Building Emergency Program, provision of technical assistance to building management for development and conduct of building drills (includes drill controller and evaluator), procedure review and approval and training for the Building Emergency Preparedness Personnel on new procedures and development processes. Resources Cost Element Department Curve Quantity Units 750 STRAIGHT TIME BASE T050 RADIATION CONTROL TECHNOLIGI KD10H 776 Complex Steelworkers Linear 17.34 Hours RCT hours per drill Drills per year 0.3612 82/227 Days remaining STRAIGHT TIME BASE T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers Linear 34.68 Hours Drills per year Process Specialist hours per drill 12 0.3612 82/227 Days remaining TENERA P170 OTHER ADMINISTRATIVE & PROFE Building 776 Project Linear 95 Factors \$'s/Hour Hours Bepa Consultant Wells Line Item T15 - Procedures Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item BOE level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Item Desc - The Procedure Administration function includes development, updating, modifications and issuance of procedures to operate the facility. Resources Denartmen Curva A57 LATA P160 TECHNICAL WRITERS AND EDITOR | K399S | Building 776 Project Linear 71,400,00 Dollars Factors Procedure Writers 1/2 Chartrand, full 70 dollars per hour hours each per year Line Item T16 - Criticality Engineering Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item BOE level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0. Item Desc - The Criticality Engineering function provides the building with criticality safety analysis that is in conformance to applicable standards, rules, and orders, and provides guidance in the form of limits and procedures which ensure the subcriticality of the building's fissile material during handling, processing, and storage operations. Two Criticality Engineers are required plus 0.5 FTE for the Lead Criticality Engineer. Resources Cost Element Department Curve Quantity Units E080 NUCLEAR (CRITICALITY) ENGINEER K399S A5H SUBCONTRACTED SRVS 57 800 00 Dollars Building 776 Project Linear 85 Criticality Safety Engineers Medrick dollars per hour Malinosky hours each per year Line Item T17 - Plan of the Week/DOD

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item

level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

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Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter Baseline Devl 1DAB

Starts In FY

Document - Rev 0.

Item Desc - The Plan of the Week (POW) is a meeting held each week to plan all work activities for the coming week, to discuss the current Facility condition and radiological concerns, to update the activity schedule, set priorities, and allocate resources. The Plan of the Week coordinator is funded in this activity.

Resources

ces		Cost Element		Skill		Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	R100S	RMRS Salaried	Linear	338.08	Hours

Factors 18 Hours per week Morgan

52 Weeks per vear

0.3612 82/227 Days remaining

Line Item T19 - Project Safety Officer

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - The Project Safety Officer (A.) Performs required Health and Safety activities, identifies hazards and potential accident producing situations within the work place, and reviews work packages, engineering work orders and equipment installation or maintenance activities for safety systems and interlock functions. Promotes and maintains awareness through employee participation, enforcement of safety rules, accident tracking and trending, and corrective actions.

(B.) Maintains ASME registration and training required to perform required Health and Safety activities noted above.

Resources

es	Cost Element	Skill	Department	Curve	Quantity	Units
	A5H SUBCONTRACTED SRVS	P090 INDUSTRIAL HYGIENISTS	K399S Building 776 Project	Linear	57,800.00	Dollars

Factors 1 Industrial Hygienist - Farler 680 Hours per vear 85 dollars per hour

Line Item T20 - Plant Review Committee

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - The Plant Review Committee, in accordance with 3-T34-SSOC-PRC, provides independent safety reviews for B776/777-related documents (e.g., procedures, IWCPs, Ops Orders, Discovery Issues, etc.) to minimize and mitigate Nuclear Safety impacts and to ensure safe operations within the facility.

Resources

es		Cost Element			Skill			Department		Curve	Quantity	Units
L	750	STRAIGHT TIME BASE	P170	ОТНІ	ER ADMINISTRATIVE & PROFE	R100S	RMRS S	Salaried		Linear	37.56	Hours
	Factors	s 2 hours per week		52	weeks per vear		0.3612	82/227 Davs remaining				
	A5H	SUBCONTRACTED SRVS	E080	NUC	LEAR (CRITICALITY) ENGINEER	K399S	Building	776 Proiect		Linear	3.193.01	Dollars
	Factors	5 1 Nuclear Safety Profession	al Medrick	2	hours per week		52	Weeks per year	0.36	12 82/227 Days	remaining	
_		85 dollars per hour		1			,				_	
Į	A5H	SUBCONTRACTED SRVS	E110	QUA	LITY CONTROL ENGINEERS	K399S	Buildina	776 Proiect		Linear	3.193.01	Dollars
	Factors	s 1 QA Professional		2	Hours per week		52	weeks per year	85	dollars per h	our	

0.3612 82/227 Days remaining

Line Item T21 - Health Physics And Instrumentation

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc -

A. Leased Labor cost of calibrations by Alpha Group of instruments used by building radiation control personnel and other building personnel: Alphamets - 114 hrs, A-100 - 176 hrs, Mircorem - 90 hrs, DRDs - 46 hrs, SAC-4 - 160 hrs, Electras - 441 hrs, Hi Vol Samplers - 34 Hrs, Lo Vol Samplers - 40 hrs, Ludlum 12-1A - 224 hrs, Ludlum 12-4 - 247 hrs, Ludlum 31 - 7 hrs, Ludlum 2 - 5 hrs, PCM-2 - 1100 hrs, RO-20 - 605 hrs, SAIC AP-2 - 16 hrs, for a total of 3305 hrs

B. Parts, supplies and overhead costs of calibration of instruments used by building radiation control personnel and other building personnel: Balances, O2
Analyzers, magnahelics, photohelics, pressure differentials, torque wrenches, PCM-2s, Ludlums, etc.

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	A5C	SUPPLIES	0000	NONE	K399S	Building 776 Project	Linear	6.501.60	Dollars
	Factors	18000 Dollars for supplies				0.3612 82/227 Days remaining			
	A5H	SUBCONTRACTED SRVS	P170	OTHER ADMINISTRATIVE & PROFE	K399S	Building 776 Project	Linear	83.413.36	Dollars
	P .	00 1 1 0 16		0.100			0.0040 00/007.0		

Factors 66 dollars per hour Support from Alpha 3499 Hours 0.3612 82/227 Days remaining

WBS No: 1DAB03 Activity ID: 1DB0300000

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect
WBS Filter
Activity Filter

Baseline Devl 1DAB

Starts In FY

Line Item T22 - Radiological Management

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Rad Ops Management provides technical direction, interpretation and guidance in all aspects of radiological control to ensure effective radiation safety practices and compliance with orders and rules. Also included in this task are routine maintenance activities necessary to support everyday radiological record logkeeping and survey documentation and procurement of routine supplies necessary to support everyday radiological record logkeeping, survey documentation, replacement/additional instrumentation, and personnel safety.

Resources

es		Co	ost Element			Skill			Department	Cı	urve	Quantity	Units
	750	STRAIGHT	TIME BASE	M010	FOREMEN	N / TEAM LEADS / GROUP	R100S	RMRS S	alaried	Lir	near	1.300.32	Hours
	Factors	2	Radiological Foreman Sutto	n. Fields	1800	Hours each	,	0.3612	82/227 Davs remaining				
Į	750	STRAIGHT	TIME BASE	M010	FOREMEN	N / TEAM LEADS / GROUP	R100S	RMRS S	alaried	Lir	near	361.20	Hours
	Factors	1	Off-shift Supervisor		1000	hours per year	,	0.3612	82/227 Days remaining				
Į	751	OVERTIME	BASE & PRE.	M010	FOREMEN	N / TEAM LEADS / GROUP	K399S	Building '	776 Project	Lir	near	195.05	Hours
i.	Factors	0.15	15% Overtime		3600	hours Straight time		0.3612	82/227 Days remaining				
Į	A5C	SUPPLIES		0000	NONE		K399S	Building	776 Project	Lir	near	25,000.00	Dollars

Factors 25000 Misc Supplies

Line Item T23 - Criticality Safety Officer

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - The Criticality Safety Officer performs the duties set forth in the Nuclear Criticality Safety Manual including serving as liaison for any criticality safety matters between organizations that have custody of fissionable material and all other organizations, coordination of requests for Critical Safety Engineering, and preparation of criticality safety operations limit postings. Also included are the annual criticality safety assessments for the facility.

Resources

ces		(Cost Element			Skill		Department	Curve	Quantity	Units	
	750	STRAIGH	IT TIME BASE	E080	NUCLEA	R (CRITICALITY) ENGINEER	R100S	RMRS Salaried	Linear	650.00	Hours	
	Factors	650	Hours/ea Panton		1	Crit Safety Officer						

Line Item T24 - Occurrence Reporting

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - This activity consists of support required to maintain occurrence reporting requirements, including preparing and uploading of notifications, conducting investigations and critiques as necessary, processing 10-day update reports, preparing root cause analysis reports and process final reports for DOE approval. In addition, required reading is included in this work scope.

Resources

ces		Cost Element		Skill	Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	R100S RMRS Salaried	Linear	325.08	Hours

Factors 900 Hours per year 1 Occurrence Reporting Professional 0.3612 82/227 Days remaining

Line Item T27 - Chemical Control Officer

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - The Chemical Control Officer serves as the single point of contact for chemical management within the Building 776/777 complex, maintains the Chemical Management Plan, maintains a list of chemical storage sites, maintains the Chemical Management Data Base, tracks the quantities of chemicals in the Building 776/777 complex and conducts bi-annual wall-to-wall inventories and random inventories as needed, reviews and approves requisitions for chemicals, maintains Material Safety Data Sheets for chemicals stored in the Building 776/777 complex, works with managers, supervisors and other staff to develop and implement appropriate chemical procedures and practices, and performs the monthly inspections of flammable cabinets.

Resources

rces		Cost Element		Skill	Department	Curve	<i>Ouantity</i>	Units	
	750	STRAIGHT TIME BASE	P170 OTH	HER ADMINISTRATIVE & PROFE	R100S RMRS Salaried	Linear	680.00	Hours	
	Factors	 Chemical Control Officer 	McDonald 68	80 Hours					

Activity ID: 1DF0301T00 Description: FY-01 B776 Operations Technical Support

Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
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Cost Risk

2 Schedule Risk

WBS No: 1DAB03 Baseline Devl Proiect **Rocky Flats Closure Project** Activity ID: 1DF0301T00 WBS Filter 1DAB **Baseline Cost and Basis of Estimate** Activity Filter

		E	Baseline Cost	and Basis of I	Activity Filter *					Starts In FY *		
	*	[~ ,]	Typ	e Hours/Unit	Total	Total	Cost	& Escalation	Cost	113 111 1		
SYS	Contingency And Escalation	1.00	ea EE	0	0	0	0	178.839	178.839	0	178.839	
T02	Radiological Engineering	1.00	ea HC	1.800	1.800	61.578	306.000	0	367.578	29.373	396.951	
T03	Stepoff Pad	1.00	ea H	2.574	2.574	56.326	0	0	56.326	26.868	83.194	
T04	Contamination Control	1.00	ea H	515	515	11.265	0	0	11.265	5.374	16.639	
T05	Radiological Work Permit	1.00	ea H	2.317	2.317	50.694	0	0	50.694	24.181	74.874	
T06	ALARA Committee	1.00	ea HC	60	60	1.231	0	0	1.231	587	1.818	
T07	Analytical Lab - DAC	9.600.00	each H	0	0	0	211.200	0	211.200	0	211.200	
T08	Nuclear Safety Support	1.00	each HC	0	0	0	612.000	0	612.000	0	612.000	
T10	Electrical Engineering	1.00	ea H	0	0	0	263.740	0	263.740	0	263.740	
T11	Mechanical Engineering	1.00	ea HC	1.800	1.800	58.986	126.000	0	184.986	28.136	213.122	
T13	Fire Protection Engineering	1.00	ea HC	0	0	0	153.000	0	153.000	0	153.000	
T14	Emergency Preparedness	1.00	ea HC	144	144	2.960	85.500	0	88.460	1.412	89.872	
T15	Procedures	1.00	ea HC	0	0	0	189.000	0	189.000	0	189.000	
T16	Criticality Engineering	1.00	ea HC	0	0	0	153.000	0	153.000	0	153.000	
T17	Plan of the Week/POD	1.00	ea HC	936	936	24.551	0	0	24.551	11.711	36.262	
T19	Proiect Safety Officer	1.00	each HC	0	0	0	153.000	0	153.000	0	153.000	
T20	Plant Review Committee	1.00	each HC	104	104	4.500	17.680	0	22.180	2.147	24.327	
T21	Health Physics And Instrumentation	1.00	ea H	0	0	0	248.934	0	248.934	0	248.934	
T22	Radiological Management	1.00	each HC	5.140	5.140	145.641	25.000	0	170.641	69.471	240.112	
T23	Criticality Safety Officer	1.00	ea HC	1.800	1.800	77.886	0	0	77.886	37.152	115.038	
T24	Occurrence Reporting	1.00	each HC	900	900	23,607	0	0	23,607	11,261	34,868	
T27	Chemical Control Officer	1.00	ea HC	1,800	1,800	47,214	0	0	47,214	22,521	69,735	
		Total for Activit	y 1DF0301T00:		19,889	566,440	2,544,054	178,839	3,289,333	270,192	3,559,525	

Line Item SYS - Contingency And Escalation

BOE

Resources

es	Cost Element		Skill		Department	Curve Oi		Units	
	CON CONTINGENCY	0000 NONE	Z	ZDEPT	No Department	Linear	107.750.60	Dollars	
	Factors 107751 Dollars								
	ESC ESCALATION	0000 NONE	Z	ZDEPT	No Department	Linear	71.088.26	Dollars	

Factors 71088.3 Dollars

Line Item T02 - Radiological Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Provides support services for ALARA, IWCPs, Building Assessments, Operation Orders, Technical Bases Documents, Radiological Deficiency Reports, Radiological Work Permits, Device/Source Audit Deliverables, ALARA job reviews and property/waste release evaluation database maintenance and Radiation Protection Program maintenance.

Resources

es		Cost Element		Skill		Department	Curve	Ouantity	Units
L	750	STRAIGHT TIME BASE	E130	OTHER ENGINEERS	R100S	RMRS Salaried	Linear	1.800.00	Hours
	Factors	1 Radiological Safety Engine	er	1800 hours per vear			-		,
	A5H	SUBCONTRACTED SRVS	E130	OTHER ENGINEERS	K399S	Building 776 Project	Linear	153.000.00	Dollars
	Factors	1 Radiological Safety Engine	er TBD	1800 hours per vear		85 dollars per hour	-		,
Į	A5H	SUBCONTRACTED SRVS	E130	OTHER ENGINEERS	K399S	Building 776 Project	Linear	153.000.00	Dollars
	Factors	 Radiological Safety Engine 	er Grube	1800 hours per year		85 dollars per hour			

Line Item T03 - Stepoff Pad

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity encompasses the radiological monitoring of personnel and equipment exiting the Radiological Controlled Areas. The proper release documentation of material and equipment leaving the radiological controlled areas is the responsibility of the set-off pad RCT. The step-off pad RCT responds to any contamination monitor alarm from personnel self-monitoring or personnel requesting help for self-monitoring. Equipment and personnel

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WBS No: 1DAB03 Activity ID: 1DF0301T00

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

The step-off pad RCT also performance tests the instruments used at the step-off pad on a daily basis.

Proiect WBS Filter

Baseline Devl 1DAB

monitoring are required by the Site Radiological Control Manual and DOE Order 5400.5 to ensure the safety of the workers, the public and the environment.

Resources

es		Cost Element		Skill		Department		Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers		Linear	2.340.00	Hours
1	actors	1 RCT		9 hrs per day		52 weeks	5	davs per wee	k	
	751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers		Linear	234.00	Hours
1	Factors -	2340 Total ST hours		0.1 10% Over-Time		1 RCT				

Line Item T04 - Contamination Control

BOF Hi

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Identification of contamination sources to prevent the spreading of contamination in controlled areas and individual exposures. Detection of contamination in cold areas; provision of technical information regarding the amount of contamination and the degree of risk in corrective actions. Response to SAAM alarms on off normal conditions, and response to loss of contamination control issues, i.e., Radiological contamination of gloves, booties, and personnel. Performance of pre-job surveys on misc, minor tasks to ensure the Radiological Work Permits are adequate to control the work performed.

Also, decontamination/contamination area rollback will be performed to increase work efficiency, reduce laundry costs, and minimize the generation of of radioactive waste. The process will include walls and floors, as well as all materials and equipment in the area to be downgraded, to be surveyed and/or decontaminated. A representative sample of rooms slated for decontamination includes: Rooms: 134E; 430; 463; 452; 131; 134; and 154A.

Resources

es		Cost Element	Skill			Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	468.00	Hours
	Factors	2 Hours/day		234 working AWS days					
	751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	46.80	Hours
	Factors	0.1 10% Overtime		469 Straight Time Hours					

Line Item T05 - Radiological Work Permit

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Writing and distribution of Radiological Work Permits which define the safe radiological working parameters. This task includes maintenance of a filing system to control the number of RWPs released and tracks returns to the RWP office through a daily log. Archiving of expired Radiological Work Permits and their supporting documentation is also performed, as well as issuing and tracking the return of Electronic Pocket Dosimeters (EPD) and recording and tracking individual doses from EPDs. All radiological surveys are filed and archived.

Resources

es	Cost Element	Skill Department	Curve Ouantity Units
	750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI KD10H 776 Complex Steelworkers	Linear 2.106.00 Hours
	Factors 1 RCT	9 Hours per day 234 Working AWS days	
	751 OVERTIME BASE & PRE.	T050 RADIATION CONTROL TECHNOLIGI KD10H 776 Complex Steelworkers	Linear 210.60 Hours
	Factors 0.1 10% Overtime	2106 Straight Time Hours	

Line Item T06 - ALARA Committee

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Addresses radiological safety concerns and issues that have been identified by the building, programs, or an activity that was conducted. The Chairperson shall be the Operations/Facility Manager, or designee, and the committee shall consist of representatives from departments that support the area. Performs evaluations to determine whether activities are being conducted in accordance with the ALARA Program and implementing procedures. Formulates and coordinates the implementation of the Project Area ALARA goals. Meets monthly on any actions taken to resolve radiological issues, noteworthy ALARA accomplishments, ALARA concerns, etc.. Generates a status report of items discussed and/or acted upon. Includes walk-downs, meetings, reporting, etc..

Resources

es	Cost Element	Skill	Department	Curve	Quantity Units
	750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	12.00 Hours
	Factors 1 hour per monthly meeting	1 RCT	12 months		
	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	24.00 Hours
	Factors 1 hour per monthly meeting	2 Pipefitters	12 Months		
	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	24.00 Hours
	Factors 1 hours per monthly meeting	2 Process Specialists	12 months		

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WBS No: 1DAB03 Rocky Flats Closure Project
Activity ID: 1DF0301T00 Baseline Cost and Basis of Estimate

Proiect WBS Filter Activity Filter

r * Starts In FY

Baseline Devl

1DAB

Line Item T07 - Analytical Lab - DAC

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Lab Support includes Offsite Commercial Support, Hot/Mixed Lab Support, Sample Team Support, and Mobile Lab Support . These activites are

DAC Analytical Support - Gross Alpha analysis for the following items:

- 1) Gross Alpha (OS01-02)
- 2) Radiological Screening (OS03-04)
- 3) Gross Alpha/Beta (OSO5-17)
- 4) Gross Alpha/Beta Air Filters (OS18-20)
- 5) Air Filter Loeading, Unloading, and Compositing (OS-21)

The type and quantity of the analysis performed is dependent on project customer needs as well as the laboratory capability and capacity.

Resources

rces	Cost Element Skill		Department	Curve	Quantity	Units	
	A5H			K267S Analytical Laboratory Services	Linear	22.00	Dollars

Factors 22 dollars per DAC Sample

Line Item T08 - Nuclear Safety Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - This function is performed by Nuclear Safety Engineering which provides nuclear technical support, facility safety analysis, Unreviewed Safety Question Determination (USQD) of activities and documents submitted for review, participation in the Operational Review Committee (ORC) process to clarify and advise members on issues concerning USQDs, Safety Evaluation Screens (SESs), and Operational Safety Requirements/Technical Safety Requirements (OSR/TSR) page changes and guidance. Historically, three engineers have been required to perform this scope.

Resources

rces		C	ost Element			Skill			Department		Curve	Ouantity	Units
	A52	TENERA		E080	NUCLEAR	(CRITICALITY) ENGINEER	K399S	Buildina	776 Proiect		Linear	612.000.00	Dollars
	Factors	1	Nuclear Safety Engineer Bo	ard,	85	dollars per hour		1800	hours	4	personnel		

Line Item T10 - Electrical Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - The Electrical Engineering group serves as Subject Matter Expert on all electrical power related equipment and systems; supports IWCP development; performs engineering operability evaluations on an as-needed basis; supports authorization basis activities; and serves as liaison/Point of Contact with RMRS Central Engineering on building engineering matters. Additionally, this position will provide engineering support for procedure development, labeling of key components, and development of system descriptions.

Resources

s		C	ost Element			Skill			Department		Curve	Ouantity	Units
	A52	TENERA		E040	ELECTE	RICAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	81.600.00	Dollars
F	actors	1	Electrical Engineer All of the	ese are	12	packages per vear	,	80	hours per design modification	85	dollars per hou	r	, , , , , , , , , , , , , , , , , , , ,
	A52	TENERA		E040	ELECTE	RICAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	35.700.00	Dollars
F	actors	1	Electrical engineers	1	12	EOEs per vear	ı	35	hours per Engineering Operability	85	dollars per hou	r	1
	A52	TENERA		E040	ELECTE	RICAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	53.040.00	Dollars
F	actors	2	LO/TOs per week		6	hours support for Lockout/T	agout	52	Weeks per vear	85	dollars per hou	r	,
	A52	TENERA		E040	ELECTE	RICAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	51.000.00	Dollars
F	actors	1	Electrical Engineer		15	ESPs per vear	,	40	hours per Enaineerina Support	85	dollars per hou	r	,
	A57	LATA		E040	ELECTE	RICAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	28.000.00	Dollars
F	actors	70	dollars per hour		10	hours support to Standard V	Vork	40	SWPs requiring EE support				,
	A57	LATA		E040	ELECTE	RICAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	14.400.00	Dollars
F	actors	1	electrical engineer		10	calculation in support of vari	ous	24	hours per electrical calculation	60	dollars per hou	r	

Line Item T11 - Mechanical Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

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WBS No: 1DAB03 Activity ID: 1DF0301T00

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect
WBS Filter
Activity Filter

Baseline Devl 1DAB

Starts In FY

Item Desc - The Mechanical Engineering group serves as subject matter expert on all mechanical equipment related systems. Additionally, this discipline provides engineering support for procedure development, system walkdowns and one-line drawing development, labeling of key components, and development of system descriptions.

Resources

es		Cost Element Skill				Department			Curve	Quantity	Units
	750	STRAIGHT TIME BASE	E070	0 MECHAN	ICAL ENGINEERS	R100S	RMRS S	alaried	Linear	1.800.00	Hours
	Factors	1 Mechanical	Engineer Bentzinger	1800	Hours per vear						
	A57	LATA	E070	0 MECHAN	ICAL ENGINEERS	K399S	Buildina ¹	776 Proiect	Linear	126.000.00	Dollars
	Factors	70 dollars per l	hour Barr	1	Mechanical Engineers		1800	hours each per vear			

Line Item T13 - Fire Protection Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Fire Protection Engineering provides technical support and fire hazards analysis for the building.

Resources

rces	Cost Element			Skill		Department	Curve	Ouantity	Units
	A5H	SUBCONTRACTED SRVS	E130	OTHER ENGINEERS	K252S	Enaineerina	Linear	153.000.00	Dollars

Factors 85 dollars per hour Lanning 1800 hours

Line Item T14 - Emergency Preparedness

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - This function includes administering the implementation of the RFETS Emergency Preparedness Program for the protection of personnel, the public, and the environment during emergency response; development and implemention of the Building Emergency Program, provision of technical assistance to building management for development and conduct of building drills (includes drill controller and evaluator), procedure review and approval and training for the Building Emergency Preparedness Personnel on new procedures and development processes.

Resources

s	Cost Element	Skill	Department	Curve	Quantity Units
Į	750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	48.00 Hours
	Factors 2 RCT	2 hours per drill	12 Drills per vear		
Į	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	96.00 Hours
	Factors 4 Process Specialist	2 hours per drill	12 Drills per vear		
Į	A52 TENERA	P170 OTHER ADMINISTRATIVE & PROFE	K399S Building 776 Project	Linear	85,500.00 Dollars
	Factors 95 \$'s/Hour	1800 Hours	0.5 Bepa Consultant		

Line Item T15 - Procedures

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - The Procedure Administration function includes development, updating, modifications and issuance of procedures to operate the facility.

Resources

rces	Cost Element	Skill	Department	Curve	Ouantity Units
	A57 LATA	P160 TECHNICAL WRITERS AND EDITOR	K399S Building 776 Project	Linear	189.000.00 Dollars

Factors 1.5 Procedure Writers Chartrand Brown- 70 dollars per hour 1800 hours each per year

Line Item T16 - Criticality Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0

Item Desc - The Criticality Engineering function provides the building with criticality safety analysis that is in conformance to applicable standards, rules, and orders, and provides guidance in the form of limits and procedures which ensure the subcriticality of the building's fissile material during handling, processing, and storage operations. Two Criticality Engineers are required plus 0.5 FTE for the Lead Criticality Engineer.

Resources

es		Cost Element	Skill		Department	Curve	Quantity	Units
	A5H	SUBCONTRACTED SRVS	E080 NUCLEAR (CRITICALITY) ENGINEER	K399S	Building 776 Project	Linear	153.000.00	Dollars

Factors 85 dollars per hour Malinosky 1800 hours each per year 1 Criticality Safety Engineers Medrick

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WBS No: 1DAB03 1DF0301T00 Activity ID:

Rocky Flats Closure Project **Baseline Cost and Basis of Estimate**

Baseline Devl Proiect WBS Filter 1DAB Activity Filter

Starts In FY

Line Item T17 - Plan of the Week/POD

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O.

Item Desc - The Plan of the Week (POW) is a meeting held each week to plan all work activities for the coming week, to discuss the current Facility condition and radiological concerns, to update the activity schedule, set priorities, and allocate resources. The Plan of the Week coordinator is funded in this activity.

Resources

es		Cost Element		Skill		Department	Curve	<i>Ouantity</i>	Units
	750	STRAIGHT TIME BASE	P170 OTHER	ADMINISTRATIVE & PROFE	R100S	RMRS Salaried	Linear	936.00	Hours
	Factors	18 Hours per week	52	Weeks per year					

Hours per week 18 Factors

Line Item T19 - Project Safety Officer

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - The Project Safety Officer (A.) Performs required Health and Safety activities, identifies hazards and potential accident producing situations within the work place, and reviews work packages, engineering work orders and equipment installation or maintenance activities for safety systems and interlock functions. Promotes and maintains awareness through employee participation, enforcement of safety rules, accident tracking and trending, and corrective actions.

(B.) Maintains ASME registration and training required to perform required Health and Safety activities noted above.

Resourc

rces		(Cost Element			Skill			Department	Curve	Ouantity	Units
	A5H	SUBCON'	TRACTED SRVS	P090	INDUSTR	IAL HYGIENISTS	K399S	Buildir	na 776 Proiect	Linear	153.000.00	Dollars
	Factors	1	Industrial Hygienist - Farler		1800	Hours per vear		85	dollars per hour			

Line Item T20 - Plant Review Committee

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - The Plant Review Committee, in accordance with 3-T34-SSOC-PRC, provides independent safety reviews for B776/777-related documents (e.g., procedures, IWCPs, Ops Orders, Discovery Issues, etc.) to minimize and mitigate Nuclear Safety impacts and to ensure safe operations within the facility.

Resources

es			Cost Element			Skill			Department		Curve	<i>Ouantity</i>	Units
	750	STRAIGH	IT TIME BASE	E080	NUCLEA	R (CRITICALITY) ENGINEER	K399S	Buildina	776 Proiect		Linear	104.00	Hours
	Factors	1	Nuclear Safety Professiona		2	hours per week		52	Weeks per vear				
	A5H	SUBCON	TRACTED SRVS	E110	QUALITY	CONTROL ENGINEERS	K399S	Buildina	776 Proiect		Linear	8.840.00	Dollars
	Factors	1	QA Professional		2	Hours per week		52	weeks per vear	85	dollars per hou	ır	
	A5H	SUBCON	TRACTED SRVS	P170	OTHER	ADMINISTRATIVE & PROFE	K399S	Buildina	776 Proiect		Linear	8.840.00	Dollars
	Factors	2	hours per week		52	weeks per year		85	dollars per hour				

Line Item T21 - Health Physics And Instrumentation

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

A. Leased Labor cost of calibrations of instruments used by building radiation control personnel and other building personnel: Alphamets - 114 hrs, A-100 - 176 hrs, Mircorem - 90 hrs, DRDs - 46 hrs, SAC-4 - 160 hrs, Electras - 441 hrs, Hi Vol Samplers - 34 Hrs, Lo Vol Samplers - 40 hrs, Ludlum 12-1A - 224 hrs, Ludlum 12-4 - 247 hrs, Ludlum 31 - 7 hrs, Ludlum 2 - 5 hrs, PCM-2 - 1100 hrs, RO-20 - 605 hrs, SAIC AP-2 - 16 hrs, for a total of 3305 hrs

Parts, supplies and overhead costs of calibration of instruments used by building radiation control personnel and other building personnel: Balances, O2 Analyzers, magnahelics, photohelics, pressure differentials, torque wrenches, PCM-2s, Ludlums, etc.

Resources

es		C	Cost Element		Skill		Department	Curve	Ouantity	Units
	A5C	SUPPLIES	3	0000	NONE	K399S	Building 776 Project	Linear	18.000.00	Dollars
_	Factors	18000	Dollars for supplies							
	A5H	SUBCONT	TRACTED SRVS	P170	OTHER ADMINISTRATIVE & PROFE	K399S	Building 776 Project	Linear	230.934.00	Dollars
	Factors	66	dollars per hour		3499 Hours					

WBS No: 1DAB03 *Activity ID:* 1DF0301T00

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect Baseline Devl WBS Filter 1DAB Activity Filter *

Starts In FY

Line Item T22 - Radiological Management

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Rad Ops Management provides technical direction, interpretation and guidance in all aspects of radiological control to ensure effective radiation safety practices and compliance with orders and rules. Also included in this task are routine maintenance activities necessary to support everyday radiological record logkeeping and survey documentation and procurement of routine supplies necessary to support everyday radiological record logkeeping, survey documentation, replacement/additional instrumentation, and personnel safety.

Resources

s	Cost Element	Skill	Department	Curve	Quantity Units
Į	750 STRAIGHT TIME BASE	M010 FOREMEN / TEAM LEADS / GROUP	R100S RMRS Salaried	Linear	3.600.00 Hours
ŕ	Factors 2 Radiological Foreman Sutto	n. Fields 1800 Hours each			
L	750 STRAIGHT TIME BASE	M010 FOREMEN / TEAM LEADS / GROUP	R100S RMRS Salaried	Linear	1.000.00 Hours
ıń	Factors 1 Off-shift Supervisor	1000 hours per year			
L	751 OVERTIME BASE & PRE.	M010 FOREMEN / TEAM LEADS / GROUP	R100S RMRS Salaried	Linear	540.00 Hours
F	Factors 0.15 15% Overtime	3600 hours Straight time			
Į	A5C SUPPLIES	0000 NONE	K399S Building 776 Project	Linear	25,000.00 Dollars

Factors 25000 Misc Supplies

Line Item T23 - Criticality Safety Officer

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - The Criticality Safety Officer performs the duties set forth in the Nuclear Criticality Safety Manual including serving as liaison for any criticality safety matters between organizations that have custody of fissionable material and all other organizations, coordination of requests for Critical Safety Engineering, and preparation of criticality safety operations limit postings. Also included are the annual criticality safety assessments for the facility.

Resources

ces		(Cost Element			Skill		Department	Curve	Quantity	Units	J
	750	STRAIGH	T TIME BASE	E080	NUCLEA	AR (CRITICALITY) ENGINEER	R100S	RMRS Salaried	Linear	1.800.00	Hours	J
	Factors	1800	Hours/ea Panton		1	Crit Safety Officer						

Line Item T24 - Occurrence Reporting

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - This activity consists of support required to maintain occurrence reporting requirements, including preparing and uploading of notifications, conducting investigations and critiques as necessary, processing 10-day update reports, preparing root cause analysis reports and process final reports for DOE approval. In addition, required reading is included in this work scope.

Resources

rces		Cost Element		Skill	Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	R100S RMRS Salaried	Linear	900.00	Hours

Factors 900 Hours per year 1 Occurrence Reporting Professional

Line Item T27 - Chemical Control Officer

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - The Chemical Control Officer serves as the single point of contact for chemical management within the Building 776/777 complex, maintains the Chemical Management Plan, maintains a list of chemical storage sites, maintains the Chemical Management Data Base, tracks the quantities of chemicals in the Building 776/777 complex and conducts bi-annual wall-to-wall inventories and random inventories as needed, reviews and approves requisitions for chemicals, maintains Material Safety Data Sheets for chemicals stored in the Building 776/777 complex, works with managers, supervisors and other staff to develop and implement appropriate chemical procedures and practices, and performs the monthly inspections of flammable cabinets.

Resources

rces		(Cost Element			Skill		Department	Curve	<i>Ouantity</i>	Units	
	750	STRAIGH	T TIME BASE	P170	OTHER /	ADMINISTRATIVE & PROFE	R100S	RMRS Salaried	Linear	1.800.00	Hours	
	Factors	1	Chemical Control Officer		1800	Hours						

Activity ID: 1DF0302T00 Description: FY-02 B776 Operations Technical Support Cost Risk 2 Schedule Risk 3

Line Item Description Quantity Units BOE Labor Labor Hours Labor Cost Materials/Sub Contingency Total Prime Burden Cost Total

 WBS No:
 1DAB03
 Rocky Flats Closure Project
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 Activity ID:
 1DF0302T00
 Baseline Cost and Basis of Estimate
 WBS Filter
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 SYS
 Contingency And Escalation
 1.00 lea
 EE
 0
 0
 0
 0
 493.516

 T02
 Radiological Engineering
 1.00 lea
 HC
 1.800
 1.800
 61.578
 306.000
 0

 T03
 Stepoff Pad
 1.00 lea
 H
 2.574
 2.574
 56.326
 0
 0

	•	~ ,	Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
SYS	Contingency And Escalation	1.00 ea	a EE	0	0	0	0	493.516	493.516	0	493.516
T02	Radiological Engineering	1.00 ea	a HC	1.800	1.800	61.578	306.000	0	367.578	21.737	389.315
T03	Stepoff Pad	1.00 ea	а Н	2.574	2.574	56.326	0	0	56.326	19.883	76.209
T04	Contamination Control	1.00 ea	a H	515	515	11.265	0	0	11.265	3.977	15.242
T05	Radiological Work Permit	1.00 ea	а Н	2.317	2.317	50.694	0	0	50.694	17.895	68.588
T06	ALARA Committee	1.00 ea	a HC	60	60	1.231	0	0	1.231	435	1.666
T07	Analytical Lab - DAC	9.600.00 ea	ach H	0	0	0	211.200	0	211.200	0	211.200
T08	Nuclear Safety Support	1.00 ea	ach HC	0	0	0	612.000	0	612.000	0	612.000
T10	Electrical Engineering	1.00 ea	а Н	0	0	0	263.740	0	263.740	0	263.740
T11	Mechanical Engineering	1.00 ea	a HC	1.800	1.800	58.986	126.000	0	184.986	20.822	205.808
T13	Fire Protection Engineering	1.00 ea	a HC	0	0	0	153.000	0	153.000	0	153.000
T14	Emergency Preparedness	1.00 ea	a HC	144	144	2.960	85.500	0	88.460	1.045	89.505
T15	Procedures	1.00 ea	a HC	0	0	0	189.000	0	189.000	0	189.000
T16	Criticality Engineering	1.00 ea	a HC	0	0	0	153.000	0	153.000	0	153.000
T17	Plan of the Week/DOD	1.00 ea	a HC	936	936	24.551	0	0	24.551	8.667	33.218
T19	Proiect Safety Officer	1.00 ea	ach HC	0	0	0	153.000	0	153.000	0	153.000
T20	Plant Review Committee	1.00 ea	ach HC	104	104	4.500	17.680	0	22.180	1.589	23.769
T21	Health Physics And Instrumentation	1.00 ea	а Н	0	0	0	248.934	0	248.934	0	248.934
T22	Radiological Management	1.00 ea	ach HC	5.140	5.140	145.641	25.000	0	170.641	51.411	222.053
T23	Criticality Safety Officer	1.00 ea	a HC	1.800	1.800	77.886	0	0	77.886	27.494	105.380
T24	Occurrence Reporting	1.00 ea	ach HC	900	900	23,607	0	0	23,607	8,333	31,940
T27	Chemical Control Officer	1.00 ea	a HC	1,800	1,800	47,214	0	0	47,214	16,667	63,881
	-	Total for Activity	1DF0302T00:		19,889	566,440	2,544,054	493,516	3,604,010	199,953	3,803,963

Line Item SYS - Contingency And Escalation

BOE

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	338.813.90	Dollars
	Factors	338814 Dollars							
	ESC	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	154.702.00	Dollars

Factors 154702 Dollars

Line Item T02 - Radiological Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Provides support services for ALARA, IWCPs, Building Assessments, Operation Orders, Technical Bases Documents, Radiological Deficiency Reports, Radiological Work Permits, Device/Source Audit Deliverables, ALARA job reviews and property/waste release evaluation database maintenance and Radiation Protection Program maintenance.

Resources

es		Cost Element		Skill		Department	Curve	Ouantity	Units
L	750	STRAIGHT TIME BASE	E130	OTHER ENGINEERS	R100S	RMRS Salaried	Linear	1.800.00	Hours
	Factors	1 Radiological Safety Engine	er	1800 hours per vear			-		,
	A5H	SUBCONTRACTED SRVS	E130	OTHER ENGINEERS	K399S	Building 776 Project	Linear	153.000.00	Dollars
	Factors	1 Radiological Safety Engine	er TBD	1800 hours per vear		85 dollars per hour	-		,
Į	A5H	SUBCONTRACTED SRVS	E130	OTHER ENGINEERS	K399S	Building 776 Project	Linear	153.000.00	Dollars
	Factors	 Radiological Safety Engine 	er Grube	1800 hours per year		85 dollars per hour			

Line Item T03 - Stepoff Pad

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity encompasses the radiological monitoring of equipment exiting the Radiological Controlled Areas. The proper release documentation of material and equipment leaving the radiological controlled areas is the responsibility of the set-off pad RCT. The step-off pad RCT responds to any contamination monitor alarm from personnel self-monitoring or personnel requesting help for self-monitoring. Equipment and personnel monitoring are required

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Starts In FY

1DAB03 WBS No: Activity ID: 1DF0302T00

Rocky Flats Closure Project **Baseline Cost and Basis of Estimate**

Proiect WBS Filter

Baseline Devl 1DAB

Activity Filter Starts In FY by the Site Radiological Control Manual and DOE Order 5400.5 to ensure the safety of the workers, the public and the environment. The step-off pad RCT also

Resources

es		Cost Element		Skill		Department	Curv	re .	Ouantity	Units
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linea	ar	2.340.00	Hours
	Factors	1 RCT		9 hrs per day		52 weeks	5 d	lavs per week		
	751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linea	ar	234.00	Hours
	Factors	2340 Total ST hours		0.1 10% Over-Time		1 RCT				

Factors Line Item T04 - Contamination Control

ROF

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Identification of contamination sources to prevent the spreading of contamination in controlled areas and individual exposures. Detect contamination in cold areas; provide technical information on amount of contamination and degree of risk an corrective actions. Respond to SAAM alarms on off normal conditions, and respond to loss of contamination control issues, i.e., Radiological contamination of gloves, booties, and personnel. Perform prejob surveys on misc. minor tasks to ensure the Radiological Work Permits are adequate to control the work performed. Also, decontamination/contamination area rollback will be performed to increase work efficiency, reduce laundry costs, and minimize the generation of of radioactive waste. The process will include walls and floors, as well as all materials and equipment in the area to be downgraded, to be surveyed and/or decontaminated. A representative sample of rooms slated for decontamination is as follows: Rooms: 134E; 430; 463; 452; 131; 134; and 154A.

Resources

es			Cost Element		Skill		Department	Curve	Ouantity	Units
	750	STRAIGH	IT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	468.00	Hours
	Factors	2	Hours/day		234 working AWS days					
	751	OVERTIN	ME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	46.80	Hours
	Factors	0.1	10% Overtime		468 Straight Time Hours					

Line Item T05 - Radiological Work Permit

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O

Item Desc - Writing and distribution of Radiological Work Permits which define the safe radiological working parameters. Includes maintenance of a filing system to control the number of RWPs released and tracks returns to the RWP office through a daily log. Archiving of expired Radiological Work Permits and their supporting documentation is also performed. Issues and tracks return of Electronic Pocket Dosimeters (EPD). Records and tracks individual doses from EPDs. Files and archives all radiological surveys.

Resources

es		Cost Element			Skill			Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	T050	RADIATIO	ON CONTROL TECHNOLIGI	KD10H	776 Com	nplex Steelworkers	Linear	2.106.00	Hours
	Factors	1 RCT		9	Hours per day		234	Working AWS days			
	751	OVERTIME BASE & PRE.	T050	RADIATIO	ON CONTROL TECHNOLIGI	KD10H	776 Com	nplex Steelworkers	Linear	210.60	Hours
	Factors	0.1 10% Overtime		2106	Straight Time Hours						

Line Item T06 - ALARA Committee

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Addresses radiological safety concerns and issues that have been identified by the building, programs, or an activity that was conducted. The Chairperson shall be the Operations/Facility Manager, or designee, and the committee shall consist of representatives from departments that support the area. Performs evaluations to determine whether activities are being conducted in accordance with the ALARA Program and implementing procedures. Formulates and coordinates the implementation of the Project Area ALARA goals. Meets monthly on any actions taken to resolve radiological issues, noteworthy ALARA accomplishments, ALARA concerns, etc.. Generates a status report of items discussed and/or acted upon. Includes walk-downs, meetings, reporting, etc..

Resources

es	Cost Element		Skill		Department	Curve	Quantity Units
Ĺ	750 STRAIGHT TIME BASE	T050	RADIATION CONTROL TECH	INOLIGI KD10H 776	Complex Steelworkers	Linear	12.00 Hours
-	Factors 1 hour per monthly n	eetina	_ 1 RCT	12	months		
Ĺ	750 STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RIS	SK RED KD10H 776	Complex Steelworkers	Linear	24.00 Hours
-	Factors 1 hour per monthly n	eetina	2 Pipefitters	12	Months		
	750 STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RIS	SK RED KD10H 776	Complex Steelworkers	Linear	24.00 Hours

Process Specialists 12 Factors hours per monthly meeting months

performance tests the instruments used at the step-off pad on a daily basis.

WBS No: 1DAB03 Rocky Flats Closure Project
Activity ID: 1DF0302T00 Baseline Cost and Basis of Estimate

Proiect Baseline Devl WBS Filter 1DAB Activity Filter *

Starts In FY

Line Item T07 - Analytical Lab - DAC

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Lab Support includes Offsite Commercial Support, Hot/Mixed Lab Support, Sample Team Support, and Mobile Lab Support . These activites are

DAC Analytical Support - Gross Alpha analysis for the following items:

- 1) Gross Alpha (OS01-02)
- 2) Radiological Screening (OS03-04)
- 3) Gross Alpha/Beta (OSO5-17)
- 4) Gross Alpha/Beta Air Filters (OS18-20)
- 5) Air Filter Loeading, Unloading, and Compositing (OS-21)

The type and quantity of the analysis performed is dependent on project customer needs as well as the laboratory capability and capacity.

Resources

rces		Cost Element	Skill	Department	Curve	Quantity	Units
	A5H	SUBCONTRACTED SRVS	0000 NONE	K267S Analytical Laboratory Services	Linear	22.00	Dollars

Factors 22 dollars per DAC Sample

Line Item T08 - Nuclear Safety Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This function is performed by Nuclear Safety Engineering which provides nuclear technical support, facility safety analysis, Unreviewed Safety Question Determination (USQD) of activities and documents submitted for review, participation in the Operational Review Committee (ORC) process to clarify and advise members on issues concerning USQDs, Safety Evaluation Screens (SESS), and Operational Safety Requirements/Technical Safety Requirements (OSR/TSR) page changes and guidance. Historically, three engineers have been required to perform this scope.

Resources

rces		C	ost Element			Skill			Department	(Curve	Ouantity	Units	
	A52	TENERA		E080	NUCLEA	R (CRITICALITY) ENGINEER	K399S	Buildina	776 Proiect	L	inear	612.000.00	Dollars	
	Factors	1	Nuclear Safety Engineer Bo	oard,	85	dollars per hour		1800	hours	4	personnel			

Line Item T10 - Electrical Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Electrical Engineering serves as Subject Matter Expert on all electrical power related equipment and systems, supports IWCP, performs engineering operability evaluations on an as-needed basis; supports authorization basis activities, and serves as liaison/Point of Contact with RMRS Central Engineering on building engineering matters. Additionally, This position will provide engineering support for procedure development, system walkdown and one line drawing development, labeling of key components and development of system descriptions.

Resources

s		C	ost Element			Skill			Department		Curve	Ouantity	Units
	A52	TENERA		E040	ELECTE	RICAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	81.600.00	Dollars
F	actors	1	Electrical Engineer All of the	ese are	12	packages per vear	,	80	hours per design modification	85	dollars per hou	r	, , , , , , , , , , , , , , , , , , , ,
	A52	TENERA		E040	ELECTE	RICAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	35.700.00	Dollars
F	actors	1	Electrical engineers	1	12	EOEs per vear	ı	35	hours per Engineering Operability	85	dollars per hou	r	1
	A52	TENERA		E040	ELECTE	RICAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	53.040.00	Dollars
F	actors	2	LO/TOs per week		6	hours support for Lockout/T	agout	52	Weeks per vear	85	dollars per hou	r	,
	A52	TENERA		E040	ELECTF	RICAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	51.000.00	Dollars
F	actors	1	Electrical Engineer		15	ESPs per vear	,	40	hours per Enaineerina Support	85	dollars per hou	r	,
	A57	LATA		E040	ELECTF	RICAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	28.000.00	Dollars
F	actors	70	dollars per hour		10	hours support to Standard V	Vork	40	SWPs requiring EE support				,
	A57	LATA		E040	ELECTE	RICAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	14.400.00	Dollars
F	actors	1	electrical engineer		10	calculation in support of vari	ous	24	hours per electrical calculation	60	dollars per hou	r	

Line Item T11 - Mechanical Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

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WBS No: 1DAB03Activity ID: 1DF0302T00

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter Baseline Devl

Filter 1DAB

Starts In FY

Item Desc - Mechanical Engineering serves as a subject matter expert on all mechanical equipment related systems. Additionally, this discipline will provide engineering support for procedure development, system walkdowns, and one line drawing development, labeling of key components, and development of system descriptions.

Resources

es		C	ost Element			Skill			Department	Curve	Quantity	Units
	750	STRAIGH	ΓTIME BASE	E070	MECHAN	ICAL ENGINEERS	R100S	RMRS S	Salaried	Linear	1.800.00	Hours
	Factors	1	Mechanical Engineer Bent	zinaer	1800	Hours per vear						
	A57	LATA		E070	MECHAN	ICAL ENGINEERS	K399S	Buildina	776 Project	Linear	126.000.00	Dollars
	Factors	70	dollars per hour Barr		1	Mechanical Engineers		1800	hours each per year			

Line Item T13 - Fire Protection Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Fire Protection Engineering provides technical support and fire hazards analysis for the building.

Resources

ces	Cost Element	Skill	Department	Curve	Quantity Units
	A5H SUBCONTRACTED SRVS	E130 OTHER ENGINEERS	K252S Engineering	Linear	153.000.00 Dollars

Factors 85 dollars per hour Lanning 1800 hours

Line Item T14 - Emergency Preparedness

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Administers the implementation of the RFETS Emergency Preparedness Program for the protection of personnel, the public, and the environment during emergency response. Develops and implements of the Building Emergency Program, provides technical assistance to building management for development and conduct of building drills, provides procedure review and approval and trains the Building Emergency Preparedness Personnel on new procedures and development processes.

A. Develop/conduct building emergency drills.

B./C./D. Drill controller/evaluator.

Resources

ces		Cost Element		Skill		Department	Curve	Ouantity	Units
	750 STRA	IGHT TIME BASE	T050 RA	DIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	48.00	Hours
	Factors 2	RCT	2	hours per drill		12 Drills per vear			
	750 STRA	IGHT TIME BASE	T060 D&	D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	96.00	Hours
	Factors 4	Process Specialist	2	hours per drill		12 Drills per vear			
	A52 TENE	RA	P170 OT	HER ADMINISTRATIVE & PROFE	K399S	Building 776 Project	Linear	85.500.00	Dollars
	Factors 95	\$'s/Hour	1	800 Hours		0.5 Bepa Consultant			

Line Item T15 - Procedures

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - The Procedure Administration function includes development, updates, modifications and issuance of procedures to operate the facility.

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	A57 L	ATA	P160	TECHNICAL WRITERS AND EDITOR	K399S	Building 776 Project	Linear	189.000.00	Dollars

Factors 1.5 Procedure Writers Chartrand Brown- 70 dollars per hour 1800 hours each per year

Line Item T16 - Criticality Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - The Criticality Engineer provides the building with criticality safety analysis that is in conformance to applicable standards, rules, and orders to provide guidance in the form of limits and procedures which ensure the subcriticality of the building's fissile material handling, processing, and storage operations. Two Criticality Engineers are required plus 0.5 for the Lead Criticality Engineer.

Resources Cost Element Skill Department Curve Quantity Units

WBS No: 1DAB03 Rockv Flats Closure Proiect Proiect Baseline Devl
Activity ID: 1DF0302T00 Baseline Cost and Basis of Estimate

Activity Filter * Starts In FY *

A5H SUBCONTRACTED SRVS E080 NUCLEAR (CRITICALITY) ENGINEER K399S Building 776 Project Linear 153.000.00 Dollars

Factors 85 dollars per hour Malinosky 1800 hours each per year 1 Criticality Safety Engineers Medrick

Line Item T17 - Plan of the Week/DOD

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - The Plan of the Week (POW) is a meeting held each week to plan all work activities for the coming week, discuss the current Facility condition, radiological concerns, to update the activity schedule, set priorities, and allocate resources. The Plan of the Week coordinator is funded in this activity.

Resources Cost Element Skill Denartment Curve Quantity Units

750 STRAIGHT TIME BASE P170 OTHER ADMINISTRATIVE & PROFE R100S RMRS Salaried Linear 936.00 Hours

Factors 18 Hours per week 52 Weeks per year

Line Item T19 - Project Safety Officer

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - A. Perform required Health and Safety activities. Identify hazards and potential accident producing situations within the work place. Review work packages, engineering work orders and equipment installation or maintenance for safety systems and interlock functions. Promote and maintain awareness through employee participation, enforcement of safety rules, accident tracking, and trending and corrective actions.

B. ASME registration and training required to perform required Health and Safety activities above.

Resources

ces		Cost Element		Skill		Department	Curve	Ouantity Units
L	A5H	SUBCONTRACTED SRVS	P090	INDUSTRIAL HYGIENISTS	K399S	Building 776 Project	Linear	153.000.00 Dollars

Factors 1 Industrial Hygienist - Farler 1800 Hours per year 85 dollars per hour

Line Item T20 - Plant Review Committee

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Plant Review Committee is a new requirement being planned for in FY-99.

Resources

es		Cost Element		Skill			Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	E080	NUCLEAR (CRITICALITY) ENGIN	IEER R100S	RMRS	Salaried	Linear	104.00	0 Hours
,	Factors	1 Nuclear Safety Professional		2 hours per week		52	Weeks per vear			
	A5H	SUBCONTRACTED SRVS	E110	QUALITY CONTROL ENGINEER	S K399S	Building	z 776 Proiect	Linear	8.840.00	0 Dollars
	Factors	1 QA Professional		2 Hours per week		52	weeks per vear	85 dollars per h	our	
Į	A5H	SUBCONTRACTED SRVS	P170	OTHER ADMINISTRATIVE & PRO	OFE K399S	Building	z 776 Proiect	Linear	8.840.00	0 Dollars
	Factors	2 hours per week		52 weeks per year		85	dollars per hour			

Line Item T21 - Health Physics And Instrumentation

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc -

A. Leased Labor cost of calibrations of instruments used by building radiation control personnel and other building personnel: Alphamets - 114 hrs, A100 - 176 hrs, Mircorem - 90 hrs, DRDs - 46 hrs, SAC-4 - 160 hrs, Electras - 441 hrs, Hi Vol Samplers - 34 Hrs, Lo Vol Samplers - 40 hrs, Ludlum 12-1A - 224
hrs, Ludlum 12-4 - 247 hrs, Ludlum 31 - 7 hrs, Ludlum 2 - 5 hrs, PCM-2 - 1100 hrs, RO-20 - 605 hrs, SAIC AP-2 - 16 hrs, for a total of 3305 hrs

B. Parts, supplies and overhead costs of calibration of instruments used by building radiation control personnel and other building personnel: Balances, O2 Analyzers, magnahelics, photohelics, pressure differentials, torque wrenches, PCM-2s, Ludlums, etc.

Resources

BOE

es		Cost Element		Skill		Department	Curve	Ouantity	Units
L	A5C	SUPPLIES	0000	NONE	K399S	Building 776 Project	Linear	18.000.00	Dollars
\boldsymbol{F}	actors	18000 Dollars for supplies							
	A5H	SUBCONTRACTED SRVS	P170	OTHER ADMINISTRATIVE & PROFE	K399S	Building 776 Project	Linear	230.934.00	Dollars

Factors 66 dollars per hour 3499 Hours

Line Item T22 - Radiological Management

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WBS No: 1DAB03 Activity ID: 1DF0302T00

Rocky Flats Closure Project **Baseline Cost and Basis of Estimate**

Proiect WBS Filter

Baseline Devl 1DAB

Starts In FY

Activity Filter

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc -

Resource

es		С	ost Element			Skill		Department	Curve	Quantity	Units
	750	STRAIGH1	TTIME BASE	M010	FOREMEN	N / TEAM LEADS / GROUP	R100S	RMRS Salaried	Linear	3.600.00	Hours
,	Factors	2	Radiological Foreman Sutto	n. Fields	1800	Hours each					
	750	STRAIGH1	TTIME BASE	M010	FOREMEN	N / TEAM LEADS / GROUP	R100S	RMRS Salaried	Linear	1.000.00	Hours
,	Factors	1	Off-shift Supervisor		1000	hours per vear					
	751	OVERTIME	E BASE & PRE.	M010	FOREMEN	N / TEAM LEADS / GROUP	R100S	RMRS Salaried	Linear	540.00	Hours
,	Factors	0.15	15% Overtime		3600	hours Straight time					
Į	A5C	SUPPLIES	3	0000	NONE		K399S	Building 776 Project	Linear	25.000.00	Dollars

25000 Misc Supplies Factors

Line Item T23 - Criticality Safety Officer

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Ttem Desc -

The Criticality Safety Officer performs the duties set forth in the Nuclear Criticality Safety Manual including serving as liaison for the criticality safety matters between organizations that have custody of fissionable material and all other organizations, coordination of requests for Critical Safety Engineer, and preparation of criticality safety limit postings. Also included is the annual assessments.

Resources

es	Cost Element	Skill	Department	Curve	Quantity	Units
7	50 STRAIGHT TIME BASE	E080 NUCLEAR (CRITICALITY) ENGINEER	R100S RMRS Salaried	Linear	1,800.00	Hours

1800 Hours/ea Panton Crit Safety Officer Factors

Line Item T24 - Occurrence Reporting

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - This activity consists of support required to maintain occurrence reporting requirements, including preparing and uploading of notifications, conducting investigations and critiques as necessary, processing 10-day update reports, preparing root cause analysis reports and process final reports for DOE approval. In addition, required reading is included in this work scope.

Resources

es			Cost Element			Skill		Department	Curve	<i>Ouantity</i>	Units
	750	STRAIGH	IT TIME BASE	P170	OTHER	ADMINISTRATIVE & PROFE	R100S	RMRS Salaried	Linear	900.00	Hours
	Factors	900	Hours per vear		1	Occurrence Reporting Profe	ssional				

Line Item T27 - Chemical Control Officer

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O.

Item Desc - Serves as the single point of contact for chemical management within the Building 776/777 complex, maintains the Chemical Management Plan, maintains a list of chemical storage sites, maintains the Chemical Management Data Base, tracks the quantities of chemicals in the Building 776/777 complex and conducts bi-annual wall-to-wall inventories and random inventories as needed, reviews and approves requisitions for chemicals, maintains Material Safety Data Sheets for chemicals stored in the Building 776/777 complex, works with managers, supervisors and other staff to develop and implement appropriate chemical procedures and practices and performs the monthly inspections of flammable cabinets.

Resources

es		Cost Element		Skill		Department	Cı	ırve	Ouantity	Units	
L	750	STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	R100S	RMRS Salaried	Lin	ear	1.800.00	Hours	

Chemical Control Officer 1800 Hours Factors Activity ID: 1DF0303T00 Description: FY-03 B776 Operations Technical Support

, 1011111, 121	Description. 1 1 00 D. 10 Operations 100.	yermodi Guppert											
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost	
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost			
SYS Contingency And Escalation		1.00	ea	EE	0	0	0	0	914.418	914.418	0	914.418	
T02 Radiological Engineering		1.00	ea	НС	1.800	1.800	61.578	306.000	0	367.578	21.306	388.884	

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2 Schedule Risk

Cost Risk

WBS No:	1DAB03	Rocky Flats Closure Project	Proiect	Baseline Devl
Activity ID:	1DF0303T00	Baseline Cost and Basis of Estimate	WBS Filter	1DAB
		Daseille Cost and Dasis of Estimate	Activity Filter	*

		Ва	seline Cost ai	nd Basis of E	stimate	Acti	vity Filter *		Sta	erts In FY *	
T03	Stepoff Pad	1.00 ea	Н	2.574	2.574	56.326	0	0	56.326	19.489	75.815
T04	Contamination Control	1.00 ea	ı H	515	515	11.265	0	0	11.265	3.898	15.163
T05	Radiological Work Permit	1.00 ea	Н	2.317	2.317	50.694	0	0	50.694	17.540	68.233
T06	ALARA Committee	1.00 ea	HC.	60	60	1.231	0	0	1.231	426	1.657
T07	Analytical Lab - DAC	9.600.00 ea	ich H	0	0	0	211.200	0	211.200	0	211.200
T08	Nuclear Safety Support	1.00 ea	ch HC	0	0	0	612.000	0	612.000	0	612.000
T10	Electrical Engineering	1.00 ea	Н	0	0	0	263.740	0	263.740	0	263.740
T11	Mechanical Engineering	1.00 ea	HC	1.800	1.800	58.986	126.000	0	184.986	20.409	205.395
T13	Fire Protection Engineering	1.00 ea	HC.	0	0	0	153.000	0	153.000	0	153.000
T14	Emergency Preparedness	1.00 ea	HC.	144	144	2.960	85.500	0	88.460	1.024	89.484
T15	Procedures	1.00 ea	HC.	0	0	0	189.000	0	189.000	0	189.000
T16	Criticality Engineering	1.00 ea	HC.	0	0	0	153.000	0	153.000	0	153.000
T17	Plan of the Week/DOD	1.00 ea	HC.	936	936	24.551	0	0	24.551	8.495	33.046
T19	Project Safety Officer	1.00 ea	ch HC	0	0	0	153.000	0	153.000	0	153.000
T20	Plant Review Committee	1.00 ea	ch HC	104	104	4.500	17.680	0	22.180	1.557	23.737
T21	Health Physics And Instrumentation	1.00 ea	H H	0	0	0	248.934	0	248.934	0	248.934
T22	Radiological Management	1.00 ea	ch HC	5.140	5.140	145.641	25.000	0	170.641	50.392	221.033
T23	Criticality Safety Officer	1.00 ea	HC	1.800	1.800	77.886	0	0	77.886	26.949	104.835
T24	Occurrence Reporting	1.00 ea	ch HC	900	900	23.607	0	0	23.607	8.168	31.775
T27	Chemical Control Officer	1.00 ea	HC	1.800	1.800	47.214	0	0	47.214	16.336	63.550
		Total for Activity	1DF0303T00:		19.889	566.440	2.544.054	914.418	4.024.912	195.988	4.220.900

Line Item SYS - Contingency And Escalation

BOE

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	660.859.10	Dollars
	Factors	660859 Dollars							
ļ	ESC	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	253.558.50	Dollars
	Factors	253559 Dollars							

Line Item T02 - Radiological Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Provides support services for ALARA, IWCPs, Building Assessments, Operation Orders, Technical Bases Documents, Radiological Deficiency Reports, Radiological Work Permits, Device/Source Audit Deliverables, ALARA job reviews and property/waste release evaluation database maintenance and Radiation Protection Program maintenance.

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	E130	OTHER ENGINEERS	R100S	RMRS Salaried	Linear	1.800.00	Hours
	Factors	1 Radiological Safety Engine	er	1800 hours per vear					
	A5H	SUBCONTRACTED SRVS	E130	OTHER ENGINEERS	K399S	Building 776 Project	Linear	153.000.00	Dollars
	Factors	1 Radiological Safety Engine	er TBD	1800 hours per year		85 dollars per hour			
	A5H	SUBCONTRACTED SRVS	E130	OTHER ENGINEERS	K399S	Building 776 Project	Linear	153,000.00	Dollars
	Factors	 Radiological Safety Engine 	er Grube	1800 hours per year		85 dollars per hour			

Line Item T03 - Stepoff Pad

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity encompasses the radiological monitoring of equipment exiting the Radiological Controlled Areas. The proper release documentation of material and equipment leaving the radiological controlled areas is the responsibility of the set-off pad RCT. The step-off pad RCT responds to any contamination monitor alarm from personnel self-monitoring or personnel requesting help for self-monitoring. Equipment and personnel monitoring are required by the Site Radiological Control Manual and DOE Order 5400.5 to ensure the safety of the workers, the public and the environment. The step-off pad RCT also performance tests the instruments used at the step-off pad on a daily basis.

Resources Cost Element Skill Department Curve Quantity Units

WBS No: 1DAB03 Activity ID: 1DF0303T00

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter Baseline Devl

S Filter	1DAB
vity Filter	*

				A	ctivity Filter "	•	Starts In FY
750 STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers		Linear	2.340.00 Hours
Factors 1 RCT		9 hrs per dav		52 weeks		5 davs per week	
751 OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers		Linear	234.00 Hours
Factors 2340 Total ST hours		0.1 10% Over-Time		1 RCT			

Line Item T04 BOE

Line Item T04 - Contamination Control

04 - Contamination Contro

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Identification of contamination sources to prevent the spreading of contamination in controlled areas and individual exposures. Detect contamination in cold areas; provide technical information on amount of contamination and degree of risk an corrective actions. Respond to SAAM alarms on off normal conditions, and respond to loss of contamination control issues, i.e., Radiological contamination of gloves, booties, and personnel. Perform prejob surveys on misc. minor tasks to ensure the Radiological Work Permits are adequate to control the work performed. Also, decontamination/contamination area rollback will be performed to increase work efficiency, reduce laundry costs, and minimize the generation of radioactive waste. The process will include walls and floors, as well as all materials and equipment in the area to be downgraded, to be surveyed and/or decontaminated. A representative sample of rooms slated for decontamination is as follows: Rooms: 134E; 430; 463; 452; 131; 134; and 154A.

Resources

es		Cost Element	Skill Department	Curve	Ouantity Units
	750	STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI KD10H 776 Complex Steelworkers	Linear	468.00 Hours
	Factors	2 Hours/day	234 working AWS days		
	751	OVERTIME BASE & PRE.	T050 RADIATION CONTROL TECHNOLIGI KD10H 776 Complex Steelworkers	Linear	46.80 Hours
	Factors	0.1 10% Overtime	468 Straight Time Hours		

Line Item T05 - Radiological Work Permit

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0

Item Desc - Writing and distribution of Radiological Work Permits which define the safe radiological working parameters. Includes maintenance of a filing system to control the number of RWPs released and tracks returns to the RWP office through a daily log. Archiving of expired Radiological Work Permits and their supporting documentation is also performed. Issues and tracks return of Electronic Pocket Dosimeters (EPD). Records and tracks individual doses from EPDs. Files and archives all radiological surveys.

Resources

es		Cost Element		Skill	Department	Curve	Ouantity Units	
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	2.106.00 Hours	
	Factors	1 RCT		9 Hours per day	234 Working AWS days			
	751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	210.60 Hours	
	Factors	0.1 10% Overtime		2106 Straight Time Hours				

Line Item T06 - ALARA Committee

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Addresses radiological safety concerns and issues that have been identified by the building, programs, or an activity that was conducted. The Chairperson shall be the Operations/Facility Manager, or designee, and the committee shall consist of representatives from departments that support the area. Performs evaluations to determine whether activities are being conducted in accordance with the ALARA Program and implementing procedures. Formulates and coordinates the implementation of the Project Area ALARA goals. Meets monthly on any actions taken to resolve radiological issues, noteworthy ALARA accomplishments, ALARA concerns, etc.. Generates a status report of items discussed and/or acted upon. Includes walk-downs, meetings, reporting, etc..

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	12.00	Hours
į	Factors	1 hour per monthly meeting		1 RCT		12 months			
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	24.00	Hours
į	Factors	1 hour per monthly meeting		2 Pipefitters		12 Months			
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	24.00	Hours

Process Specialists

Line Item T07 - Analytical Lab - DAC

Factors 1

hours per monthly meeting

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

12

months

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WBS No: 1DAB03 Rocky Flats Closure Project Activity ID: 1DF0303T00 **Baseline Cost and Basis of Estimate**

Proiect Baseline Devl WBS Filter 1DAB

Starts In FY

Item Desc - Lab Support includes Offsite Commercial Support, Hot/Mixed Lab Support, Sample Team Support, and Mobile Lab Support . These activites are described below:

DAC Analytical Support - Gross Alpha analysis for the following items:

- 1) Gross Alpha (OS01-02)
- 2) Radiological Screening (OS03-04)
- 3) Gross Alpha/Beta (OSO5-17)
- 4) Gross Alpha/Beta Air Filters (OS18-20)
- 5) Air Filter Loeading, Unloading, and Compositing (OS-21)

The type and quantity of the analysis performed is dependent on project customer needs as well as the laboratory capability and capacity.

Resources

es		Cost Element	Skill			Department	Curve	Quantity	Units
	A5H	SUBCONTRACTED SRVS	0000	NONE	K267S	Analytical Laboratory Services	Linear	22.00	Dollars

22 dollars per DAC Sample Factors

Line Item T08 - Nuclear Safety Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0

Item Desc - This function is performed by Nuclear Safety Engineering which provides nuclear technical support, facility safety analysis, Unreviewed Safety Question Determination (USQD) of activities and documents submitted for review, participation in the Operational Review Committee (ORC) process to clarify and advise members on issues concerning USODs, Safety Evaluation Screens (SESs), and Operational Safety Requirements/Technical Safety Requirements (OSR/TSR) page changes and guidance. Historically, three engineers have been required to perform this scope.

Resource

ces			Cost Element			Skill			Department		Curve	Ouantity	Units
	A52	TENERA		E080	NUCLEAR	(CRITICALITY) ENGINEER	K399S	Building	776 Project		Linear	612.000.00	Dollars
	Factors	1	Nuclear Safety Engineer Bo	ard	85	dollars per hour		1800	houre	1	narconnal		

Line Item T10 - Electrical Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Electrical Engineering serves as Subject Matter Expert on all electrical power related equipment and systems, supports IWCP, performs engineering operability evaluations on an as-needed basis; supports authorization basis activities, and serves as liaison/Point of Contact with RMRS Central Engineering on building engineering matters. Additionally, This position will provide engineering support for procedure development, system walkdown and one line drawing development, labeling of key components and development of system descriptions.

Resources

s	С	ost Element			Skill			Department		Curve	Ouantity	Units
A52	TENERA		E040	ELECTRI	CAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	81.600.00	Dollars
Factor	s 1	Electrical Engineer All of the	ese are	12	packages per vear		80	hours per design modification	85	dollars per hour		
A52	TENERA		E040	ELECTRI	CAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	35.700.00	Dollars
Factor	s 1	Electrical engineers		12	EOEs per vear	1	35	hours per Engineering Operability	85	dollars per hour		
A52	TENERA		E040	ELECTRI	CAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	53.040.00	Dollars
Factor	s 2	LO/TOs per week		6	hours support for Lockout/T	agout	52	Weeks per vear	85	dollars per hour		, ,
A52	TENERA		E040	ELECTRI	CAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	51.000.00	Dollars
Factor	s 1	Electrical Engineer		15	ESPs per vear	T	40	hours per Enaineerina Support	85	dollars per hour		
A57	LATA		E040	ELECTRI	CAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	28.000.00	Dollars
Factor	s 70	dollars per hour		10	hours support to Standard \	Vork	40	SWPs requiring EE support				
A57	LATA		E040	ELECTRI	CAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	14.400.00	Dollars
Factor	<i>s</i> 1	electrical engineer		10	calculation in support of var	ious	24	hours per electrical calculation	60	dollars per hour		

Line Item T11 - Mechanical Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Mechanical Engineering serves as a subject matter expert on all mechanical equipment related systems. Additionally, this discipline will provide engineering support for procedure development, system walkdowns, and one line drawing development, labeling of key components, and development of system descriptions.

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WBS No: 1DAB03 Proiect Baseline Devl **Rocky Flats Closure Project** Activity ID: 1DF0303T00 WBS Filter 1DAB **Baseline Cost and Basis of Estimate** Auginian Filana

						Activity Filler		Starts In F I	
Resources		Cost Element		Skill		Department	Curve	Ouantity	
	750	STRAIGHT TIME BASE	E070	MECHANICAL ENGINEERS	R100S	RMRS Salaried	Linear	1.800.00	Hours
	Factors	Mechanical Engineer Bentz	inger	1800 Hours per vear	•	•		•	-
	A57	LATA	E070	MECHANICAL ENGINEERS	K399S	Building 776 Project	Linear	126.000.00	Dollars

Factors 70 Mechanical Engineers 1800 hours each per year dollars per hour Barr

Line Item T13 - Fire Protection Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Cost Element Units Resources Skill Department Curve A5H SUBCONTRACTED SRVS E130 OTHER ENGINEERS K252S Engineering Linear 153.000.00 Dollars

Factors dollars per hour Lanning

Line Item T14 - Emergency Preparedness

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Administers the implementation of the RFETS Emergency Preparedness Program for the protection of personnel, the public, and the environment during emergency response. Develops and implements of the Building Emergency Program, provides technical assistance to building management for development and conduct of building drills, provides procedure review and approval and trains the Building Emergency Preparedness Personnel on new procedures and development processes.

A. Develop/conduct building emergency drills.

B./C./D. Drill controller/evaluator.

Resources

s	Cost Elem	ent		Skill			Department	Curve	Quantity	Units
L	750 STRAIGHT TIME	BASE T05	0 RADIATIO	N CONTROL TECHNOLIGI	KD10H	776 Com	plex Steelworkers	Linear	48.00	Hours
1	Factors 2 RCT		2	hours per drill		12	Drills per vear			
L	750 STRAIGHT TIME	BASE T06	O D&D HAZ I	REDUC TECH / RISK RED	KD10H	776 Com	plex Steelworkers	Linear	96.00	Hours
1	Factors 4 Proce	ss Specialist	2	hours per drill		12	Drills per vear			
L	A52 TENERA	P17	OTHER AD	MINISTRATIVE & PROFE	K399S	Buildina	776 Proiect	Linear	85.500.00	Dollars
7	Factors 95 \$'s/Ho	nur	1800	Hours		0.5	Rena Consultant			

Line Item T15 - Procedures

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - The Procedure Administration function includes development, updates, modifications and issuance of procedures to operate the facility.

Resource

rces		Cost Element		Skill	Department	Curve	Ouantity	Units
	A57 LA	ATA	P160	TECHNICAL WRITERS AND EDITOR	K399S Building 776 Project	Linear	189.000.00	Dollars

Factors 1.5 Procedure Writers Chartrand Brown- 70 dollars per hour hours each per vear

Line Item T16 - Criticality Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - The Criticality Engineer provides the building with criticality safety analysis that is in conformance to applicable standards, rules, and orders to provide quidance in the form of limits and procedures which ensure the subcriticality of the building's fissile material handling, processing, and storage operations. Two Criticality Engineers are required plus 0.5 for the Lead Criticality Engineer.

Resources		A5H SUBCONTRACTED SRVS		Skill		Department			Cur	ve	Quantity	Units		
	A5H	SUBCON	ITRACTED SRVS	E080	NUCLEAF	R (CRITICALITY) ENGINEER	K399S	Buildina	776 Proiect	Line	ear	153.000.00	Dollars	
	Factors	85	dollars per hour Malinosky		1800	hours each per vear		1	Criticality Safety Engineers Medrick					

Line Item T17 - Plan of the Week/DOD

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

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1DAB03 WBS No: Activity ID: 1DF0303T00

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter Baseline Devl 1DAB

Starts In FY

Units

Document - Rev 0.

Item Desc - The Plan of the Week (POW) is a meeting held each week to plan all work activities for the coming week, discuss the current Facility condition, radiological concerns, to update the activity schedule, set priorities, and allocate resources. The Plan of the Week coordinator is funded in this activity.

Resources

es		Cost Element		Skill		Department	Curve	<i>Ouantity</i>	Units
	750	STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	R100S	RMRS Salaried	Linear	936.00	Hours

18 Factors Hours per week Weeks per year

Line Item T19 - Project Safety Officer

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - A. Perform required Health and Safety activities. Identify hazards and potential accident producing situations within the work place. Review work packages, engineering work orders and equipment installation or maintenance for safety systems and interlock functions. Promote and maintain awareness through employee participation, enforcement of safety rules, accident tracking, and trending and corrective actions.

B. ASME registration and training required to perform required Health and Safety activities above.

Resources

s	Cost Element	Skill	Department	Curve	<i>Ouantity</i>	Units
	A5H SUBCONTRACTED SRVS	P090 INDUSTRIAL HYGIENISTS	K399S Building 776 Project	Linear	153.000.00	Dollars

Factors 1 Industrial Hygienist - Farler 1800 Hours per year 85 dollars per hour

Line Item T20 - Plant Review Committee

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Plant Review Committee is a new requirement being planned for in FY-99.

Resources

s		Cost Element		Skill			Department		Curve	Quantity	Units
	750	STRAIGHT TIME BASE	E080	NUCLEAR (CRITICALITY) ENGINEER	K399S	Buildina	776 Proiect		Linear	104.00	Hours
1	actors	 Nuclear Safety Professional 		2 hours per week		52	Weeks per vear				
	A5H	SUBCONTRACTED SRVS	E110	QUALITY CONTROL ENGINEERS	K399S	Buildina	776 Proiect		Linear	8.840.00	Dollars
1	actors	1 QA Professional		2 Hours per week		52	weeks per vear	. 85	dollars per h	our	
	A5H	SUBCONTRACTED SRVS	P170	OTHER ADMINISTRATIVE & PROFE	K399S	Buildina	776 Proiect		Linear	8.840.00	Dollars

Factors 2 hours per week weeks per year dollars per hour

Line Item T21 - Health Physics And Instrumentation

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc -

Leased Labor cost of calibrations of instruments used by building radiation control personnel and other building personnel: Alphamets - 114 hrs, A-100 - 176 hrs, Mircorem - 90 hrs, DRDs - 46 hrs, SAC-4 - 160 hrs, Electras - 441 hrs, Hi Vol Samplers - 34 Hrs, Lo Vol Samplers - 40 hrs, Ludlum 12-1A - 224 hrs, Ludlum 12-4 - 247 hrs, Ludlum 31 - 7 hrs, Ludlum 2 - 5 hrs, PCM-2 - 1100 hrs, RO-20 - 605 hrs, SAIC AP-2 - 16 hrs, for a total of 3305 hrs

Parts, supplies and overhead costs of calibration of instruments used by building radiation control personnel and other building personnel: Balances, 02 Analyzers, magnahelics, photohelics, pressure differentials, torque wrenches, PCM-2s, Ludlums, etc.

Resources

es		(Cost Element			Skill		Department	Curve	Ouantity	Units
	A5C	SUPPLIES	3	0000	NONE		K399S	Building 776 Project	Linear	18.000.00	Dollars
	Factors	18000	Dollars for supplies								
	A5H	SUBCONT	TRACTED SRVS	P170	OTHER A	DMINISTRATIVE & PROFE	K399S	Building 776 Project	Linear	230.934.00	Dollars
	Factors	66	dollars per hour		3499	Hours					

Line Item T22 - Radiological Management

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc -

Resources	Cost Element	Skill	Department	Curve	Ouantity Units	S
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Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect Baseline Devl WBS Filter 1DAB

	Daseille Cost and	u basis oi Estillate	Activity Filter *	Starts In FY *
750 STRAIGHT TIME BASE	M010 FOREMEN / TEAM LEADS / GROUP	R100S RMRS Salaried	Linear	3.600.00 Hours
Factors 2 Radiological Foreman Sut	utton. Fields 1800 Hours each			
750 STRAIGHT TIME BASE	M010 FOREMEN / TEAM LEADS / GROUP	R100S RMRS Salaried	Linear	1.000.00 Hours
Factors 1 Off-shift Supervisor	1000 hours per vear			
751 OVERTIME BASE & PRE.	M010 FOREMEN / TEAM LEADS / GROUP	R100S RMRS Salaried	Linear	540.00 Hours
Factors 0.15 15% Overtime	3600 hours Straight time			
A5C SUPPLIES	0000 NONE	K399S Building 776 Project	Linear	25.000.00 Dollars
05000 11' 0 "				

Factors 25000 Misc Supplies

Line Item T23 - Criticality Safety Officer

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc -

The Criticality Safety Officer performs the duties set forth in the Nuclear Criticality Safety Manual including serving as liaison for the criticality safety matters between organizations that have custody of fissionable material and all other organizations, coordination of requests for Critical Safety Engineer, and preparation of criticality safety limit postings. Also included is the annual assessments.

Resources

es		(Cost Element			Skill		Department	Curve	Quantity	Units
	750	STRAIGH	T TIME BASE	E080	NUCLEAR	(CRITICALITY) ENGINEER	R100S	RMRS Salaried	Linear	1,800.00	Hours
	Factors	1800	Hours/ea Panton		1	Crit Safety Officer					

Line Item T24 - Occurrence Reporting

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity consists of support required to maintain occurrence reporting requirements, including preparing and uploading of notifications, conducting investigations and critiques as necessary, processing 10-day update reports, preparing root cause analysis reports and process final reports for DOE approval. In addition, required reading is included in this work scope.

Resources

es		Cost Element	Skill		Department	Curve	<i>Ouantity</i>	Units
	750	STRAIGHT TIME BASE	P170 OTHER ADMINISTRATIVE & PROFE	R100S	RMRS Salaried	Linear	900.00	Hours

Factors 900 Hours per year 1 Occurrence Reporting Professional

Hours

Line Item T27 - Chemical Control Officer

Factors

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Serves as the single point of contact for chemical management within the Building 776/777 complex, maintains the Chemical Management Plan, maintains a list of chemical storage sites, maintains the Chemical Management Data Base, tracks the quantities of chemicals in the Building 776/777 complex and conducts bi-annual wall-to-wall inventories and random inventories as needed, reviews and approves requisitions for chemicals, maintains Material Safety Data Sheets for chemicals stored in the Building 776/777 complex, works with managers, supervisors and other staff to develop and implement appropriate chemical procedures and practices and performs the monthly inspections of flammable cabinets.

Resources

s	Cost Element	Skill	Department	Curve	Ouantity	Units
	750 STRAIGHT TIME BASE	P170 OTHER ADMINISTRATIVE & PROFE	R100S RMRS Salaried	Linear	1.800.00 H	Hours

1DXXXFT00 Description: End of B776 Operations Technical Support

Chemical Control Officer

Activity ID. IDA	Description. End of Dirio operations rec	miloui Cupi	,,,,,					Cost Risk	Z Schedule h	tion 0		
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
SYS	Contingency And Escalation	1.00	ea	EE	0	0	0	0	306.615	306.615	0	306.615
T02	Radiological Engineering	0.66	ea	HC	1.800	1.184	40.512	201.316	0	241.828	11.424	253.252
T03	Stepoff Pad	0.66	ea	Н	2.574	1.693	37.057	0	0	37.057	10.450	47.507
T04	Contamination Control	0.66	ea	Н	515	339	7.411	0	0	7.411	2.090	9.501
T05	Radiological Work Permit	0.66	ea	Н	2.317	1.524	33.351	0	0	33.351	9.405	42.756
T06	ALARA Committee	0.66	ea	HC	60	39	810	0	0	810	228	1.038
T07	Analytical Lab - DAC	6.315.79	each	Н	0	0	0	138.947	0	138.947	0	138.947
T08	Nuclear Safety Support	0.66	each	HC	0	0	0	402.632	0	402.632	0	402.632

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Cost Pick

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 WBS No:
 1DAB03
 Rocky Flats Closure Project
 Project
 Baseline Devl

 Activity ID:
 1DXXXFT00
 Baseline Cost and Basis of Estimate
 WBS Filter
 1DAB

		Daseille	Cost and	Dasis Oi Es	umate	Activi	tv Filter *		Star	ts In FY *	
T10	Electrical Engineering	0.66 ea	Н	0	0	0	173.513	0	173.513	0	173.513
T11	Mechanical Engineering	0.66 ea	HC	1.800	1.184	38.807	82.895	0	121.701	10.943	132.645
T13	Fire Protection Engineering	0.66 ea	HC	0	0	0	100.658	0	100.658	0	100.658
T14	Emergency Preparedness	0.66 ea	HC	144	95	1.947	56.250	0	58.197	549	58.747
T15	Procedures	0.66 ea	HC	0	0	0	124.342	0	124.342	0	124.342
T16	Criticality Engineering	0.66 ea	HC	0	0	0	100.658	0	100.658	0	100.658
T17	Plan of the Week/DOD	0.66 ea	HC	936	616	16.152	0	0	16.152	4.555	20.707
T19	Proiect Safety Officer	0.66 each	HC	0	0	0	100.658	0	100.658	0	100.658
T20	Plant Review Committee	0.66 each	HC	104	68	2.961	11.632	0	14.592	835	15.427
T21	Health Physics And Instrumentation	0.66 ea	Н	0	0	0	163.772	0	163.772	0	163.772
T22	Radiological Management	0.66 each	HC	5.140	3.382	95.817	16.447	0	112.264	27.020	139.284
T23	Criticality Safety Officer	0.66 ea	HC	1.800	1.184	51.241	0	0	51.241	14.450	65.691
T24	Occurrence Reporting	0.66 each	HC	900	592	15.531	0	0	15.531	4.380	19.911
T27	Chemical Control Officer	0.66 ea	HC	1.800	1.184	31.062	0	0	31.062	8.759	39.821
		Total for Activity 1DXXX	FT00:		13.085	372.658	1.673.720	306.615	2.352.993	105.090	2.458.082

Line Item SYS - Contingency And Escalation

BOE

Resources

ces		Cost Element	Skill	Department	Curve	Quantity Units
	CON	CONTINGENCY	0000 NONE	ZDEPT No Department	Linear	100.039.30 Dollars
	Factors	100039 Dollars				
	ESC	ESCALATION	0000 NONE	ZDEPT No Department	Linear	206.575.80 Dollars

Factors 206576 Dollars

Line Item T02 - Radiological Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Provides support services for ALARA, IWCPs, Building Assessments, Operation Orders, Technical Bases Documents, Radiological Deficiency Reports, Radiological Work Permits, Device/Source Audit Deliverables, ALARA job reviews and property/waste release evaluation database maintenance and Radiation Protection Program maintenance.

Resources

s	Cost Element	Skill	Department	Curve	Ouantity Units
	750 STRAIGHT TIME BASE	E130 OTHER ENGINEERS	R100S RMRS Salaried	Linear	1.800.00 Hours
	Factors 1 Radiological Safety Enginee	er 1800 hours per vear			
	A5H SUBCONTRACTED SRVS	E130 OTHER ENGINEERS	K399S Building 776 Project	Linear	153.000.00 Dollars
	Factors 1 Radiological Safety Enginee	er Grube 1800 hours per vear	85 dollars per hour		
Į	A5H SUBCONTRACTED SRVS	E130 OTHER ENGINEERS	K399S Building 776 Project	Linear	153.000.00 Dollars
	Factors 1 Radiological Safety Engineer	er TBD 1800 hours per year	85 dollars per hour		

Line Item T03 - Stepoff Pad

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity encompasses the radiological monitoring of equipment exiting the Radiological Controlled Areas. The proper release documentation of material and equipment leaving the radiological controlled areas is the responsibility of the set-off pad RCT. The step-off pad RCT responds to any contamination monitor alarm from personnel self-monitoring or personnel requesting help for self-monitoring. Equipment and personnel monitoring are required by the Site Radiological Control Manual and DOE Order 5400.5 to ensure the safety of the workers, the public and the environment. The step-off pad RCT also performance tests the instruments used at the step-off pad on a daily basis.

Resource

ces	Cost Element	Skill	Department	Curve	Quantity Units
	750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	2.340.00 Hours
	Factors 1 RCT	9 hrs per day	52 weeks	5 davs per wee	ek
	751 OVERTIME BASE & PRE.	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	234.00 Hours
	Factors 2340 Total ST hours	0.1 10% Over-Time	1 RCT		

Line Item T04 - Contamination Control

BOE Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item

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level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Identification of contamination sources to prevent the spreading of contamination in controlled areas and individual exposures. Detect contamination in cold areas; provide technical information on amount of contamination and degree of risk an corrective actions. Respond to SAAM alarms on off normal conditions, and respond to loss of contamination control issues, i.e., Radiological contamination of gloves, booties, and personnel. Perform prejob surveys on misc. minor tasks to ensure the Radiological Work Permits are adequate to control the work performed. Also, decontamination/contamination area rollback will be performed to increase work efficiency, reduce laundry costs, and minimize the generation of of radioactive waste. The process will include walls and floors, as well as all materials and equipment in the area to be downgraded, to be surveyed and/or decontaminated. A representative sample of rooms slated for decontamination is as follows: Rooms: 134E; 430; 463; 452; 131; 134; and 154A.

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNO	LIGI KD10H	776 Complex Steelworkers	Linear	468.00	Hours
	Factors	2 Hours/day		234 working AWS days					
	751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNO	LIGI KD10H	776 Complex Steelworkers	Linear	46.80	Hours
	Factors	0.1 10% Overtime		468 Straight Time Hours					

Line Item T05 - Radiological Work Permit

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Writing and distribution of Radiological Work Permits which define the safe radiological working parameters. Includes maintenance of a filing system to control the number of RWPs released and tracks returns to the RWP office through a daily log. Archiving of expired Radiological Work Permits and their supporting documentation is also performed. Issues and tracks return of Electronic Pocket Dosimeters (EPD). Records and tracks individual doses from EPDs. Files and archives all radiological surveys.

Resources

es		Cost Ele	ment		Skill			Department	Curve	e	Ouantity	Units
	750	STRAIGHT TIME	BASE	T050 RADIAT	ION CONTROL TECHNOLIGI	KD10H	776 Com	olex Steelworkers	Linea	ar	2.106.00 l	lours
	Factors	1 RCT		9	Hours per day		234	Working AWS days				
	751	OVERTIME BAS	E & PRE.	T050 RADIAT	ION CONTROL TECHNOLIGI	KD10H	776 Com	olex Steelworkers	Linea	ar	210.60 H	lours
	Factors	0.1 10%	Overtime	2106	Straight Time Hours							

Line Item T06 - ALARA Committee

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Addresses radiological safety concerns and issues that have been identified by the building, programs, or an activity that was conducted. The Chairperson shall be the Operations/Facility Manager, or designee, and the committee shall consist of representatives from departments that support the area. Performs evaluations to determine whether activities are being conducted in accordance with the ALARA Program and implementing procedures. Formulates and coordinates the implementation of the Project Area ALARA goals. Meets monthly on any actions taken to resolve radiological issues, noteworthy ALARA accomplishments, ALARA concerns, etc.. Generates a status report of items discussed and/or acted upon. Includes walk-downs, meetings, reporting, etc..

Resources

es	Cost Element	Skill	Department	Curve	Quantity Units
	750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIG	KD10H 776 Complex Steelworkers	Linear	12.00 Hours
	Factors 1 hour per monthly meeting	1 RCT	12 months		
Ĺ	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	24.00 Hours
-	Factors 1 hour per monthly meeting	2 Pipefitters	12 Months		
	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	24.00 Hours

Factors 1 hours per monthly meeting Process Specialists months

Line Item T07 - Analytical Lab - DAC

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Lab Support includes Offsite Commercial Support, Hot/Mixed Lab Support, Sample Team Support, and Mobile Lab Support . These activites are described below:

DAC Analytical Support - Gross Alpha analysis for the following items:

- 1) Gross Alpha (OS01-02)
- 2) Radiological Screening (OS03-04)

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3) Gross Alpha/Beta (OS05-17)

4) Gross Alpha/Beta - Air Filters (OS18-20)

5) Air Filter Loeading, Unloading, and Compositing (OS-21)

The type and quantity of the analysis performed is dependent on project customer needs as well as the laboratory capability and capacity.

Resources

ces		Cost Element	Skill			Department	Curve	Ouantity	Units
	A5H	SUBCONTRACTED SRVS	0000	NONE	K267S	Analytical Laboratory Services	Linear	22.00	Dollars

Factors 22 dollars per DAC Sample

Line Item T08 - Nuclear Safety Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This function is performed by Nuclear Safety Engineering which provides nuclear technical support, facility safety analysis, Unreviewed Safety Question Determination (USQD) of activities and documents submitted for review, participation in the Operational Review Committee (ORC) process to clarify and advise members on issues concerning USQDs, Safety Evaluation Screens (SESs), and Operational Safety Requirements/Technical Safety Requirements (OSR/TSR) page changes and guidance. Historically, three engineers have been required to perform this scope.

Resources

ces	Cost Element	Skill	Department	Curve	Ouantity	Units
	A52 TENERA	E080 NUCLEAR (CRITICALITY) ENGINEER	K399S Building 776 Project	Linear	612.000.00	Dollars

Factors 1 Nuclear Safety Engineer Board, 85 dollars per hour 1800 hours 4 personnel

Line Item T10 - Electrical Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Electrical Engineering serves as Subject Matter Expert on all electrical power related equipment and systems, supports IWCP, performs engineering operability evaluations on an as-needed basis; supports authorization basis activities, and serves as liaison/Point of Contact with RMRS Central Engineering on building engineering matters. Additionally, This position will provide engineering support for procedure development, system walkdown and one line drawing development, labeling of key components and development of system descriptions.

Resources

s		C	ost Element			Skill			Department		Curve	Ouantity	Units
L	A52	TENERA		E040	ELECTR	ICAL ENGINEERS	K399S	Building	776 Proiect		Linear	81.600.00	Dollars
1	Factors	1	Electrical Engineer All of the	ese are	12	packages per vear	,	80	hours per design modification	85	dollars per hour		,
	A52	TENERA		E040	ELECTR	ICAL ENGINEERS	K399S	Building	776 Proiect		Linear	35.700.00	Dollars
1	Factors	1	Electrical engineers		12	EOEs per vear	,	35	hours per Engineering Operability	85	dollars per hour		
	A52	TENERA		E040	ELECTR	ICAL ENGINEERS	K399S	Building	776 Proiect		Linear	53.040.00	Dollars
1	Factors	2	LO/TOs per week		6	hours support for Lockout/Ta	agout	52	Weeks per vear	85	dollars per hour		
	A52	TENERA		E040	ELECTR	ICAL ENGINEERS	K399S	Building	776 Proiect		Linear	51.000.00	Dollars
1	Factors	1	Electrical Engineer		15	ESPs per vear	,	40	hours per Engineering Support	85	dollars per hour		
	A57	LATA		E040	ELECTR	ICAL ENGINEERS	K399S	Building	776 Proiect		Linear	28.000.00	Dollars
1	Factors	70	dollars per hour		10	hours support to Standard V	Vork	40	SWPs requiring EE support				
L	A57	LATA		E040	ELECTR	ICAL ENGINEERS	K399S	Building	776 Proiect		Linear	14.400.00	Dollars
1	Factors	1	electrical engineer		10	calculation in support of vari	ous	24	hours per electrical calculation	60	dollars per hour		

Line Item T11 - Mechanical Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Mechanical Engineering serves as a subject matter expert on all mechanical equipment related systems. Additionally, this discipline will provide engineering support for procedure development, system walkdowns, and one line drawing development, labeling of key components, and development of system descriptions.

Resources

es			Cost Element			Skill			Department	Curve	Ouantity	Units
	750	STRAIGH	T TIME BASE	E070	MECHAN	IICAL ENGINEERS	R100S	RMRS S	Salaried	Linear	1.800.00	Hours
	Factors	1	Mechanical Engineer Be	ntzinger	1800	Hours per vear	*					
	A57	LATA		E070	MECHAN	IICAL ENGINEERS	K399S	Buildina	776 Proiect	Linear	126.000.00	Dollars
	Factors	70	dollars per hour Barr		1	Mechanical Engineers		1800	hours each per year			

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Line Item T13 - Fire Protection Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

 Resources
 Cost Element
 Skill
 Department
 Curve
 Quantity
 Units

 A5H
 SUBCONTRACTED SRVS
 E130
 OTHER ENGINEERS
 K252S
 Engineering
 Linear
 153,000,000 Dollars

Factors 85 dollars per hour Lanning 1800 hours

Line Item T14 - Emergency Preparedness

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev. 0

Item Desc - Administers the implementation of the RFETS Emergency Preparedness Program for the protection of personnel, the public, and the environment during emergency response. Develops and implements of the Building Emergency Program, provides technical assistance to building management for development and conduct of building drills, provides procedure review and approval and trains the Building Emergency Preparedness Personnel on new procedures and development processes.

A. Develop/conduct building emergency drills.

B./C./D. Drill controller/evaluator.

Resources

es		Cost Element			Skill			Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	T050	RADIATION	ON CONTROL TECHNOLIGI	KD10H	776 Cor	nplex Steelworkers	Linear	48.00	Hours
	Factors	2 RCT		2	hours per drill		12	Drills per vear			
	750	STRAIGHT TIME BASE	T060	D&D HAZ	REDUC TECH / RISK RED	KD10H	776 Cor	nplex Steelworkers	Linear	96.00	Hours
	Factors	4 Process Spec	ialist	2	hours per drill		12	Drills per vear			
	A52	TENERA	P170	OTHER A	ADMINISTRATIVE & PROFE	K399S	Buildina	776 Proiect	Linear	85.500.00	Dollars
	Factors	95 \$'s/Hour		1800	Hours		0.5	Bepa Consultant			

Line Item T15 - Procedures

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - The Procedure Administration function includes development, updates, modifications and issuance of procedures to operate the facility.

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	A57	LATA	P160	TECHNICAL WRITERS AND EDITOR	K399S	Building 776 Project	Linear	189.000.00	Dollars

Factors 1.5 Procedure Writers Chartrand Brown- 70 dollars per hour 1800 hours each per year

Line Item T16 - Criticality Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - The Criticality Engineer provides the building with criticality safety analysis that is in conformance to applicable standards, rules, and orders to provide guidance in the form of limits and procedures which ensure the subcriticality of the building's fissile material handling, processing, and storage operations. Two Criticality Engineers are required plus 0.5 for the Lead Criticality Engineer.

Resources

25			Cost Element			Skill			Department	Curve	Ouantity	Units	ı
	A5H	SUBCON	ITRACTED SRVS	E080	NUCLEAR	R (CRITICALITY) ENGINEER	K399S	Buildina	776 Proiect	Linear	153.000.00	Dollars	ı
	Factors	85	dollars per hour Malinosky	-	1800	hours each per year		1	Criticality Safety Engineers Medrick			:	

Line Item T17 - Plan of the Week/DOD

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - The Plan of the Week (POW) is a meeting held each week to plan all work activities for the coming week, discuss the current Facility condition, radiological concerns, to update the activity schedule, set priorities, and allocate resources. The Plan of the Week coordinator is funded in this activity.

Resources	Cost Element	Skill	Department	Curve	Ouantity L	Jnits .
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750 STRAIGHT TIME BASE P170 OTHER ADMINISTRATIVE & PROFE R100S RMRS Salaried Linear 936,00 Hours

Factors 18 Hours per week 52 Weeks per year

Line Item T19 - Project Safety Officer

1DAB03

1DXXXFT00

BOE

WBS No:

Activity ID:

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - A. Perform required Health and Safety activities. Identify hazards and potential accident producing situations within the work place. Review work packages, engineering work orders and equipment installation or maintenance for safety systems and interlock functions. Promote and maintain awareness through employee participation, enforcement of safety rules, accident tracking, and trending and corrective actions.

B. ASME registration and training required to perform required Health and Safety activities above.

Resources

es			Cost Element			Skill			Department	Curve	Quantity	Units
	A5H	SUBCON	ITRACTED SRVS	P090 IN	NDUSTRIA	L HYGIENISTS	K399S	Buildina	776 Proiect	Linear	153.000.00	Dollars
	Factors	1	Industrial Hygienist - Farler		1800	Hours per vear		85	dollars per hour			

Line Item T20 - Plant Review Committee

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Plant Review Committee is a new requirement being planned for in FY-99.

Resources

es		Cost Element			Skill			Department		Curve	Quantity	Units
	750	STRAIGHT TIME BASE	E080	NUCLEA	R (CRITICALITY) ENGINEER	K399S	Building	776 Proiect		inear	104.0	0 Hours
_	Factors	 Nuclear Safety Professiona 		2	hours per week		52	Weeks per vear				
	A5H	SUBCONTRACTED SRVS	E110	QUALITY	CONTROL ENGINEERS	K399S	Building	776 Proiect		_inear	8.840.0	0 Dollars
	Factors	1 QA Professional		2	Hours per week		52	weeks per vear	85	dollars per ho	our	
	A5H	SUBCONTRACTED SRVS	P170	OTHER A	ADMINISTRATIVE & PROFE	K399S	Building	776 Proiect		inear	8.840.0	0 Dollars
	Factors	2 hours per week		52	weeks per year		85	dollars per hour				

Line Item T21 - Health Physics And Instrumentation

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0

Item Desc -

A. Leased Labor cost of calibrations of instruments used by building radiation control personnel and other building personnel: Alphamets - 114 hrs, A-100 - 176 hrs, Mircorem - 90 hrs, DRDs - 46 hrs, SAC-4 - 160 hrs, Electras - 441 hrs, Hi Vol Samplers - 34 Hrs, Lo Vol Samplers - 40 hrs, Ludlum 12-1A - 224 hrs, Ludlum 12-4 - 247 hrs, Ludlum 31 - 7 hrs, Ludlum 2 - 5 hrs, PCM-2 - 1100 hrs, RO-20 - 605 hrs, SAIC AP-2 - 16 hrs, for a total of 3305 hrs

B. Parts, supplies and overhead costs of calibration of instruments used by building radiation control personnel and other building personnel: Balances, O2 Analyzers, magnahelics, photohelics, pressure differentials, torque wrenches, PCM-2s, Ludlums, etc.

Resources

es	Cost Element	Skill	Department	Curve	Ouantity Units
	A5C SUPPLIES	0000 NONE	K399S Building 776 Project	Linear	18,000.00 Dollars
_	Factors 18000 Dollars for supplies	.			
	A5H SUBCONTRACTED SRVS	P170 OTHER ADMINISTRATIVE & PROFE	K399S Building 776 Project	Linear	230.934.00 Dollars
	Factors 66 dollars per hour	3499 Hours			

Line Item T22 - Radiological Management

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc -

Resources

es		(ost Element			Skill		Department	Curve	Ouantity	Units
	750	STRAIGH	TTIME BASE	M010	FOREME	N / TEAM LEADS / GROUP	R100S	RMRS Salaried	Linear	3.600.00	Hours
	Factors	2	Radiological Foreman Sutto	n. Fields	1800	Hours each					
	750	STRAIGH	TTIME BASE	M010	FOREME	N / TEAM LEADS / GROUP	R100S	RMRS Salaried	Linear	1.000.00	Hours
	Factors	1	Off-shift Supervisor		1000	hours per vear					

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				Activity Filter	•	Starts In FY
751	OVERTIME BASE & PRE.	M010 FOREN	MEN / TEAM LEADS / GROUP	R100S RMRS Salaried	Linear	540.00 Hours
Factors	0.15 15% Overtime	3600	hours Straight time		·	
A5C	SUPPLIES	0000 NONE	<u> </u>	K399S Building 776 Project	Linear	25.000.00 Dollars

Factors 25000 Misc Supplies

Line Item T23 - Criticality Safety Officer

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O

The Criticality Safety Officer performs the duties set forth in the Nuclear Criticality Safety Manual including serving as liaison for the criticality safety matters between organizations that have custody of fissionable material and all other organizations, coordination of requests for Critical Safety Engineer, and preparation of criticality safety limit postings. Also included is the annual assessments.

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	E080 NU	JCLEAR (CRITICALITY) ENGINEER	R100S	RMRS Salaried	Linear	1,800.00	Hours

Crit Safety Officer Factors 1800 Hours/ea Panton

Line Item T24 - Occurrence Reporting

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O

Item Desc - This activity consists of support required to maintain occurrence reporting requirements, including preparing and uploading of notifications, conducting investigations and critiques as necessary, processing 10-day update reports, preparing root cause analysis reports and process final reports for DOE approval. In addition, required reading is included in this work scope.

Resource

rces		Cost Element		Skill	Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	R100S RMRS Salaried	Linear	900.00	Hours

900 Hours per vear Occurrence Reporting Professional Factors

Line Item T27 - Chemical Control Officer

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Serves as the single point of contact for chemical management within the Building 776/777 complex, maintains the Chemical Management Plan, maintains a list of chemical storage sites, maintains the Chemical Management Data Base, tracks the quantities of chemicals in the Building 776/777 complex and conducts bi-annual wall-to-wall inventories and random inventories as needed, reviews and approves requisitions for chemicals, maintains Material Safety Data Sheets for chemicals stored in the Building 776/777 complex, works with managers, supervisors and other staff to develop and implement appropriate chemical procedures and practices and performs the monthly inspections of flammable cabinets.

Resource

ces		C	Cost Element			Skill		Department	Curve	<i>Ouantity</i>	Units
	750	STRAIGH	T TIME BASE	P170	OTHER A	DMINISTRATIVE & PROFE	R100S	RMRS Salaried	Linear	1,800.00	Hours
	Factors	1	Chemical Control Officer		1800	Hours					

<i>F</i>	Cactors 1 Chemical Control Officer 1800	Hours										
WBS No: 1DA	B04 Title: B776 Operations Managem	nent										
Activity ID: 1	DB0400000 Description: FY-00 B776 Operations Man	agement 4t	h Qtr					Cost Risk	2 Schedule R	?isk 3		
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
OM04	Configuration Control Authority (CCA)	1.00	ea	HC	4.896	4.896	131.384	0	0	131.384	64.115	195.500
OM07	Environmental Technical Support	1.00	ea	HC	0	0	0	115.600	0	115.600	0	115.600
OM08	Utility Management	1.00	ea	HC	0	0	0	57.800	0	57.800	0	57.800
OM09	SOE's	1.00	ea	HC	7.910	7.910	176.398	0	0	176.398	86.082	262.481
OM10	Shift & Operations Orders	1.00	ea	HC	0	0	0	21.828	0	21.828	0	21.828
OM12	Decontamination	1.00	ea	Н	410	410	11.128	0	0	11.128	5.430	16.558
OM14	Management Assessment Program	1.00	ea	Н	0	0	0	45.078	0	45.078	0	45.078
OM15	Custodial	1.00	ea	HC	1.950	1.950	32.916	0	0	32.916	16.063	48.979
OM16	Laundry	1.00	ea	HC	960	960	22.903	240.000	0	262.903	11.177	274.079
OM17	Training	1.00	ea	HC	3.382	3.382	69.454	84.521	0	153.974	33.893	187.868
OM18	Price Anderson Coordination	1.00	each	HC	0	0	0	46.393	0	46.393	0	46.393

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Baseline Cost and Basis of Estimate

Project
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Total for Activity 1DB0400000: 19.509 444.183 611.219 0 1.055.402 216.761 1.272.163

Starts In FY

Line Item OM04 - Configuration Control Authority (CCA)

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Configuration Control Authorities (CCA) are the single point work release for the authorization of activities in B776/777. The CCA ensures that activities are appropriately planned, scheduled, technically reviewed and may be conducted within the applicable authorization basis. The CCA shall be cognizant of safety system status in order to release work to be conducted within the AB. The CCA shall act as the emergency incident commander in the event that an upset condition arises or an emergency response is warranted.

Overtime required to support maintenance and emerging activities to ensure safety and operability of the facility is included in this basis of estimate.

Resources

es		Cost Element	Skill	Department	Curve	Quantity Units
	750	STRAIGHT TIME BASE	P170 OTHER ADMINISTRATIVE & PROF	K399S Building 776 Project	Linear	4.080.00 Hours
	Factors	6 CCAs	680 Hours per vear			
	751	OVERTIME BASE & PRE.	P170 OTHER ADMINISTRATIVE & PROF	K399S Building 776 Project	Linear	816.00 Hours
	Factors	4080 Hours ST	0.2 20% Overtime			

Line Item OM07 - Environmental Technical Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O

Item Desc - Acts as a single point of contact for all environmental compliance issues within designated buildings, reviews and approves Non Routine Waste Origination Logs, supports regulatory area inspections with CDPHE, EPA, DOE, and RFETS, and completes the appropriate pre- and post-status documents, maintains the Environmental Central File System for designated buildings, identifies corrective measures to environmental compliance related deficiencies and prepares environmental compliance action plans, maintains the Waste Stream and Residue Characterization book for the building, initiates the reactive chemical management plan ensuring the proper notification are made and that the treatment complies with the building authorization basis, documents any generator treatment performed in the building, and ensures that the building is supplied with adequate spill response equipment.

Resources

es			Cost Element				Skill			Department	Curve	<i>Ouantity</i>	Units
	A5H	SUBCON	ITRACTED SRVS		E050	ENVIRO	NMENTAL ENGINEERS	R100S	RMRS S	alaried	Linear	61,200.00	Dollars
	Factors	2	Environmental -	Technologists	3 -	680	hours per year		45	Dollars per hour RMRS Corporate			
	A5H	SUBCON	ITRACTED SRVS		P170	OTHER A	ADMINISTRATIVE & PROFE	K399S	Building	776 Project	Linear	54,400.00	Dollars
	Factors	1	Env'l Specialist	- Stoller		680	Hours per Week		80	Dollars per hour RMRS Corporate			

Line Item OM08 - Utility Management

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Utility management includes the Utilities Manager and the Utilities Foreman, as follows:

The Utilities Manager oversees facility utility operations per DOE and Site Standards. Specific responsibilities include ensuring that utility systems and equipment function safely and properly; that surveillances are performed in a safe and timely manner; that applicable training and qualification standards are met by management, technical, and Stationary Operating Engineers; and that all activities are in concert with the plant, building, and programs objectives.

The Utilities Foreman directly oversees the daily SOE activities and ensures that all required activities are conducted in a safe, timely, and proper manner, and in accordance with management guidance.

Resources

s		Cost Element	Skill	Department	Curve	Ouantity Units
	A5H SU	JBCONTRACTED SRVS	P170 OTHER ADMINISTRATIVE & PROFE	K399S Building 776 Project	Linear	57.800.00 Dollars
	Factors	95 dollars per bour	1 Litility Specialist Theorefold	690 Hours		

Line Item OM09 - SOE's

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - The Stationary Operating Engineers (SOEs) are required to be present around the clock and are on various jump shifts, 365 days per year to monitor both the control room and compressor house, and to make shiftly rounds. One SOE is required to cover the control room and one SOE is required to cover the compressor house and make shiftly rounds. Overtime is added to account for shift turnover, training, and absences due to illness, or vacations. SOEs also perform the following surveillances during their shiftly rounds: Photohelics; EGEN; Fan Operatibity; Oxygen Analyzers; and Hepa Filter

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WBS No: 1DAB04 Rocky Flats Closure Project
Activity ID: 1DB0400000 Baseline Cost and Basis of Estimate

Proiect Baseline Devl WBS Filter 1DAB

Activity Filter Starts In FY Differential Pressure. Resources Cost Element Department Curve Units 750 STRAIGHT TIME BASE R070 WASTE TREATMENT OPERATOR A | KD10H | 776 Complex Steelworkers Linear 6.905.67 Hours SOFs 0.873 In FY-98 approximately 87.3% of this 2.5 Hours per day (over 3 shifts) 365 days per year (continuous coverage)

0.3612 82/227 Davs remaining

751 OVERTIME BASE & PRE. R070 WASTE TREATMENT OPERATOR A KD10H 776 Complex Steelworkers Linear 1.004.61 Hours

Factors 0.127 approximately 12.7% of the coverage 2.5 SOEs 24 Hours per day 365 days per year to provide total

0.3612 82/227 Davs remaining

Line Item OM10 - Shift & Operations Orders

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Operations and Shift Orders Administration includes ongoing maintenance of all active building operations and shift orders by an experienced technical writer-administrator. Generally, the administrator updates existing orders in response to the building's day-to-day operating demands and in accordance with standing plant policies and procedures. In some cases, the administrator may develop an original order. In addition, the administrator processes the orders in accordance with plant and DOE standards, maintains an accurate and current working file, and maintains an up-to-date Operations Orders Manual. The administrator works in conjunction with building professional staff and management, subject matter experts, and other technical writers in order to ensure the accuracy, timeliness, and thoroughness of the operations orders.

Resources

es			Cost Element			Skill			Department	Curve	Ouantity	Units
	A57	LATA		P160	TECHNIC	AL WRITERS AND EDITOR	K399S	Buildina	776 Project	Linear	20.400.00	Dollars
	Factors	60	dollars per hour Chartrand		340	hours						<u> </u>
	A57	LATA		P160	TECHNIC	AL WRITERS AND EDITOR	K399S	Buildina	776 Proiect	Linear	1.428.00	Dollars
	Factors	0.07	7% overtime		60	dollars per hour		340	hours straight time			

Line Item OM12 - Decontamination

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev0.

Item Desc -

Provide as needed decontamination support to support various operations in B776/777.

Resources

es		Cost Element			Skill			Department	Ci	urve	Quantity	Units
	750	STRAIGHT TIME BASE	P090	INDUST	RIAL HYGIENISTS	R100S	RMRS S	Salaried	Lir	near	65.02	Hours
_	Factors	1 Industrial Hygienist		. 9	Hours per day performing Be	e Decon	20	days per year performing Be Decon	0.3612	82/227 Days	remaining	
	750	STRAIGHT TIME BASE	T050	RADIAT	TON CONTROL TECHNOLIGI	KD10H	776 Con	nplex Steelworkers	Lir	near	65.02	Hours
_	Factors	1 RCT		. 9	hours per day Be Decon		20	days performing Be decon per year	0.3612	82/227 Days	remaining	
Į	750	STRAIGHT TIME BASE	T060	D&D HA	AZ REDUC TECH / RISK RED	KD10H	776 Con	nplex Steelworkers	Lir	near	130.03	Hours
_	Factors	2 Process Specialists		. 9	hours per day for Be Decon		20	days	0.3612	82/227 Days	remaining	
	751	OVERTIME BASE & PRE.	T060	D&D HA	AZ REDUC TECH / RISK RED	KD10H	776 Con	nplex Steelworkers	Lir	near	150.26	Hours
	Factors	8 hours per week Pu Decon		52	weeks per year		0.3612	82/227 Days remaining				

Line Item OM14 - Management Assessment Program

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Coordination of Management Assessment Program for the 776/777 buildings. Reviews and tracks items identified through the performance of MAP's. Inputs actions into the PATS system and tracks to completion.

Resources Cost Element Skill Department Curve Quantity Units A53 E-2 P170 OTHER ADMINISTRATIVE & PROFE K399S Building 776 Project Linear 45.077.76 Dollars

Factors 52 weeks per year -Scott 60 dollars per hour 40 hours per week coordinate/administer

0.3612 82/227 Days remaining

Line Item OM15 - Custodial

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

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WBS No: 1DAB04 *Activity ID:* 1DB0400000

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect
WBS Filter
Activity Filter

Baseline Devl 1DAB

Starts In FY *

Item Desc - Custodial Support covers basic cleaning support including cleaning of locker rooms and restrooms, common areas, office areas, conference rooms. Tasks include floor maintenance (vacuuming, sweeping, mopping, and polishing), bathroom cleaning and stocking of supplies and materials, housekeeping, disposal of rubbish, dusting office furniture, and light outside cleaning and snow management.

Resources

s			Cost Element			Skill		Department	Curve	Quantity	Units
	750	STRAIG	HT TIME BASE	L030	UTILITY V	VORKER	KD10H	776 Complex Steelworkers	Linear	1.950.00	Hours
	Factors	3	Utility Workers		650	Hours per vear					

Line Item OM16 - Laundry

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Laundry stocking includes sorting and distributing anti-c clothing within Buildings 776/777 and the B778 change room.

This pays for modesty clothing and anti-c clothing.

Resources

T50 STRAIGHT TIME BASE L090 GENERAL LABORER KD10H 776 Complex Steelworkers Linear 283.90 Hours Factors 524 hours 1.5 50% increase in needs over FY-99 0.3612 82/227 Davs remaining T50 STRAIGHT TIME BASE T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers Linear 225.39 Hours Factors 1 Process Specialist 8 Hours Straight Time per week 52 weeks per vear 1.5 50% increase in needs over FY-99 0.3612 82/227 Davs remaining T51 OVERTIME BASE & PRE. T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers Linear 450.78 Hours Factors 2 Process Specialist 8 Hours per week 52 weeks per vear 1.5 50% increase in needs over FY-99 0.3612 82/237 Davs remaining 450.78 Hours Factors 2 Process Specialist 8 Hours per week 52 weeks per vear 1.5 50% increase in needs over FY-99 0.3612 82/237 Davs remaining 450.78 Hours	s	Cost Element			Skill			Department		Curve	Quantity	Units
Too STRAIGHT TIME BASE Too D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers Linear 225.39 Hours Factors 1 Process Specialist 8 Hours Straight Time per week 52 weeks per vear 1.5 50% increase in needs over FY-99 1.5 50% increase in needs over FY-99 Total OVERTIME BASE & PRE. Total D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers Linear 450.78 Hours Factors 2 Process Specialists 8 Hours per week 52 weeks per vear 1.5 50% increase in needs over FY-99	75	0 STRAIGHT TIME BASE	L090	GENERAL I	LABORER	KD10H	776 Con	nplex Steelworkers		Linear	283.90	Hours
Factors 1 Process Specialist 8 Hours Straight Time per week 52 weeks per vear 1.5 50% increase in needs over FY-99	Facto	ors 524 hours		1.5	50% increase in needs over	FY-99	0.3612	82/227 Davs remaining				
0.3612 82/227 Davs remaining 751 OVERTIME BASE & PRE. T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers Linear 450.78 Hours Factors 2 Process Specialists 8 Hours per week 52 weeks per vear 1.5 50% increase in needs over FY-99	75	0 STRAIGHT TIME BASE	T060	D&D HAZ R	REDUC TECH / RISK RED	KD10H	776 Con	nplex Steelworkers		Linear	225.39	Hours
751 OVERTIME BASE & PRE. T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers Linear 450.78 Hours Factors 2 Process Specialists 8 Hours per week 52 weeks per year 1.5 50% increase in needs over FY-99	Facto	ors 1 Process Specialist		8	Hours Straight Time per wee	ek	52	weeks per year	1.5	50% increase	e in needs over	FY-99
Factors 2 Process Specialists 8 Hours per week 52 weeks per year 1.5 50% increase in needs over FY-99		0.3612 82/227 Davs remaining	1			I					ı	
	75	1 OVERTIME BASE & PRE.	T060	D&D HAZ R	REDUC TECH / RISK RED	KD10H	776 Con	nplex Steelworkers		Linear	450.78	Hours
0.2642 92/227 Days remaining	Facto	prs 2 Process Specialists		8	Hours per week		52	weeks per year	1.5	50% increase	e in needs over	FY-99
0.3012 02/22/ Days lethalifild		0.3612 82/227 Davs remaining		1							T.	
A5F CSS FIXED PRICE 0000 NONE K260S Site Operations Linear 240.000.00 Dollar	A5	F CSS FIXED PRICE	0000	NONE		K260S	Site Ope	erations		Linear	240.000.00	Dollars

Factors 60000 Dollars/Month 4 Months

Line Item OM17 - Training

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0

Item Desc - Training Qualification for personnel attending courses required for job performance as defined in the Qualification Performance & Training records for each building specific department and skill code.

Education Reimbursement covers formal approved off-site educational programs and/or attendance at off-site training seminars that directly benefit the employees' performance.

The Training Coordinator ensures compliance with plant training standards, advises building management regarding training requirements, and provides guidance to the Training Scheduler for implementation of plantwide training standards.

The Training Scheduler provides logistics information regarding training sessions and schedules attendance of building personnel at required training courses.

Rad Ops Training funds support time spent in class to maintain sufficient qualifications.

Resources

es	Cost Element		Skill			Department	C	Curve	Ouantity	Units
750	STRAIGHT TIME BASE	T050 RADIATION	CONTROL TECHNOLIGI	KD10H	776 Com	plex Steelworkers	L	inear	869.77	Hours
Factors	86 Hours	28 F	RCTs		0.3612	82/227 Davs remaining				
750	STRAIGHT TIME BASE	T060 D&D HAZ R	EDUC TECH / RISK RED	KD10H	776 Com	plex Steelworkers	L	inear	58.51	Hours
Factors	9 Personnel	18 l	Hours (RCRA)		0.3612	82/227 Davs remaining				
750	STRAIGHT TIME BASE	T060 D&D HAZ R	EDUC TECH / RISK RED	KD10H	776 Com	plex Steelworkers	L	inear	1.087.21	Hours
Factors	35 D&D Workers	86 h	nours each per vear general	training	0.3612	82/227 Davs remaining				
750	STRAIGHT TIME BASE	T060 D&D HAZ R	EDUC TECH / RISK RED	KD10H	776 Com	plex Steelworkers	L	inear	497.01	Hours
Factors	16 Personnel	86 I	Hours		0.3612	82/227 Davs remaining				
750	STRAIGHT TIME BASE	T060 D&D HAZ R	EDUC TECH / RISK RED	KD10H	776 Com	plex Steelworkers	L	inear	497.01	Hours
Factors	16 Personnel	86 H	Hours		0.3612	82/227 Days remaining				
750	STRAIGHT TIME BASE	T060 D&D HAZ R	EDUC TECH / RISK RED	KD10H	776 Com	plex Steelworkers	L	inear	372.76	Hours
Factors	12 Personnel	86 H	Hours		0.3612	82/227 Days remaining				

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WBS No: 1DAB04 Proiect Baseline Devl Rocky Flats Closure Project Activity ID: 1DB0400000 WBS Filter 1DAB **Baseline Cost and Basis of Estimate** Activity Filter P150 TRAINERS A5H SUBCONTRACTED SRVS K399S Building 776 Project 52.012.80 Dollars Linear Subcontracted Trainer Randozzo 1800 hours dollars per hour 0.3612 82/227 Days remaining A5H SUBCONTRACTED SRVS P150 TRAINERS R100S RMRS Salaried 32 508 00 Dollars Linear Factors RMRS Trainer Mendoza 1800 50 dollars per hour 0.3612 82/227 Days remaining Line Item OM18 - Price Anderson Coordination Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item BOE level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O Item Desc - This activity includes support for authorization, review, and processing of Price Anderson Amendment Act (PAAA) issues. These items include reviewing Occurrence Reports, Radiological Deficiency Reports (RDR), Facility assessments, audits and surveillance reports, and adverse trends and indicators. The PAAA Coordinator investigates and documents issues/events or conditions at the facility level to the degree deemed necessary by the PA Compliance Manager and/or the RMRS General Council. This may include such activities as attending fact-finding meetings, participating in root cause investigations, interviewing facility personnel, reviewing records, participating in the development of corrective actions and generating closure documentation. In addition, this line contains the work scope for the Commitments Tracking Coordinator who is responsible for tracking all external and internal commitments for B776/777 personnel. This includes Corrective Action Requests (CAR), Deficiency Reports (DR), Environmental Commitments, JCUSC Safety Concerns, Compliance Schedule Agreements (CSA), Short-Term Compliance Statements (STCS), and all DOE commitments. Responsible for ensuring status revision requests, interim certificates of completion, and final certificates of completion are submitted to site Commitments Tracking personnel as required. Resources Cost Element Skill Department Curve Quantity Units A5H SUBCONTRACTED SRVS P170 OTHER ADMINISTRATIVE & PROFE K399S Building 776 Project 24.417.12 Dollars Linear 20 Hours per week coordinating Price 52 weeks per vear 0.3612 82/227 Days remaining dollars per hour 21.975.41 Dollars

A5H SUBCONTRACTED SRVS P170 OTHER ADMINISTRATIVE & PROFE K399S Building 776 Project Linear 0.3612 82/227 Days remaining hours per week for commitments 52 weeks per vear 65 dollars per hour Factors Activity ID: 1DB0400001 Description: FY-00 Personnel Relo & Property Disposition Cost Risk 2 Schedule Risk 3

BOE Line Item Description Units Labor Labor Hours Labor Cost Materials/ Sub Contingency Total Prime Burden Cost Total Cost Quantity Hours/Unit & Escalation TypeTotal Total Cost Cost 776-1CPA Computer/Comm. Equipment Disposition 0.00 P1CPA HC 0 0 #Num! Office Furniture Disposition HC 0 0 0 0 0 0 0 776-1FPA 0.00 P1FPA #Num! HC 3.123 776-PersonnelRel Personnel Relocation 20.00 each 0 0 0 3.123 0 3.123 0 Total for Activity 1DB0400001: 0 0 3 123 0 3 123 0 3 123

Line Item 776-1CPA - Computer/Comm. Equipment Disposition

BOE

Resource unit values are from Disposal Cost Model.

Line Item quantity for FY-01 is planned to be insignificant. This line item is being included in the work plan for future modification if necessary.

esources Cost Element	Skill	Department	Curve	Quantity Units
750 STRAIGHT TIME BASE	E120 SAFETY ENGINEERS	K399S Building 776 Project	Linear	0.07 Hours
Factors 0.2 Hazard Assessment	0.3612 82/227 Davs remaining			
750 STRAIGHT TIME BASE	L050 MISSION SUP SPEC I (CBLFAB.DSP.	KD10H 776 Complex Steelworkers	Linear	0.07 Hours
Factors 0.2 Readiness/Removal	0.3612 82/227 Davs remaining			
750 STRAIGHT TIME BASE	L070 MISSION SUP SPEC III	KD10H 776 Complex Steelworkers	Linear	0.04 Hours
Factors 0.1 Material Handling	0.3612 82/227 Davs remaining			
750 STRAIGHT TIME BASE	M020 MANAGERS (GRADE 69 - 72)	C270S Property Management	Linear	0.04 Hours
Factors 0.1 Administrative	0.3612 82/227 Davs remaining			
750 STRAIGHT TIME BASE	P170 OTHER ADMINISTRATIVE & PROFE	C242S Transportation	Linear	0.07 Hours
Factors 0.2 Transportation	0.3612 82/227 Davs remaining			
750 STRAIGHT TIME BASE	P170 OTHER ADMINISTRATIVE & PROFE	C270S Property Management	Linear	0.09 Hours
Factors 0.25 Administrative	0.3612 82/227 Days remaining			

Line Item 776-1FPA - Office Furniture Disposition

BOE Resource unit values are from Disposal Cost Model.

Line Item quantity for FY-01 is planned to be insignificant. This line item is being included in the work plan for future modification if necessary.

Resources	Cost Element	Skill	Department	Curve	Quantity Units
	750 STRAIGHT TIME BASE	L050 MISSION SUP SPEC I (CBLFAB.DSP.	KD10H 776 Complex Steelworkers	Linear	0.11 Hours
	Factors 0.3 Readiness/Removal	0.3612 82/227 Davs remaining			
	750 STRAIGHT TIME BASE	L070 MISSION SUP SPEC III	KD10H 776 Complex Steelworkers	Linear	0.04 Hours
	Factors 0.1 Material Handling	0.3612 82/227 Davs remaining			

WBS No: 1DAB04
Activity ID: 1DB0400001

Rockv Flats Closure Proiect
Baseline Cost and Basis of Estimate

WBS Filter
1DAB

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_						Activity Filter	*	Starts In FY
	750	STRAIGHT TIME BASE	M020	MANAGERS (GRADE 69 - 72)	C270S	Property Management	Linear	0.04 Hours
F	actors	0.1 Administrative		0.3612 82/227 Davs remaining				
	750	STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	C242S	Transportation	Linear	0.07 Hours
F	actors	0.2 Transportation		0.3612 82/227 Davs remaining				
	750	STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	C270S	Property Management	Linear	0.09 Hours

Factors 0.25 Administrative 0.3612 82/227 Days remaining

Line Item 776-PersonnelRelo - Personnel Relocation

BOE

Historical Data Source - Personnel Relocation Planning Template (3/12/99) and associated guidance on average cost for relocation.

Item Desc - Relocate Personnel Supporting B776/777 Closure Breakdown of Historical Data:

Item - Personnel Relocation

Units - ea

Unit Cost - 432.35

Unit Cost Adjustment factor - None

Revised Unit Cost - 432.35

Basis for adjustment -

Resources Cost Element		Skill	Department	Curve	Ouantity Units
	A5H SUBCONTRACTED SRVS	0000 NONE	K399S Building 776 Project	Linear	156.16 Dollars
	Factors 432.35 Dollars per employee reloca	ation	0.3612 82/227 Days remaining		

Activity ID: 1DB0440000 Description: FY-04 B776 Facility Landlord Cost Risk 2 Schedule Risk 3

ACTIVITY ID. TOB	Description: F1-04 B116 Facility Landion	4						Cost Kisk	2 Scheaule K	isk 5		
Line Item	Description	Quantity	Units	BOE Type	Labor Hours/Unit	Labor Hours Total	Labor Cost Total	Materials/ Sub Cost	Contingency & Escalation	Total Prime Cost	Burden Cost	Total Cost
OM04	Configuration Control Authority (CCA)	0.33	ea	HC	12.960	4.277	114.768	0	0	114.768	32.365	147.132
OM07	Environmental Technical Support	0.33		HC	0	0	0	149.952	0	149.952	0	149.952
OM08	Utility Management	0.33		HC	0	0	0	50.490	0	50.490	0	50.490
OM09	SOE's	0.33		HC	28.225	9.314	214.674	0	0	214.674	60.538	275.212
OM10	Shift & Operations Orders	0.33		HC	0	0	0	38.135	0	38.135	0	38.135
OM12	Decontamination	0.33	ea	Н	870	287	7.296	0	0	7.296	2.058	9.354
OM14	Management Assessment Program	0.33	ea	Н	0	0	0	41.184	0	41.184	0	41.184
OM15	Custodial	0.33	ea	HC	5.400	1.782	30.080	0	0	30.080	8.483	38.563
OM16	Laundry	1.00	ea	HC	2.658	2.658	63,408	720.000	0	783.408	17.881	801.289
OM17	Training	0.33	ea	HC	6.136	2.025	46.826	11.550	0	58.376	13.205	71.580
OM18	Price Anderson Coordination	1.00	each	HC	0	0	0	138.320	0	138.320	0	138.320
SYS	Contingency And Escalation	1.00	ea	EE	0	0	0	0	628.385	628.385	0	628.385
T02	Radiological Engineering	1.00	ea	HC	0	0	0	306.000	0	306.000	0	306.000
T03	Stepoff Pad	1.00	ea	Н	2.574	2.574	56.326	0	0	56.326	15.884	72.210
T04	Contamination Control	1.00	ea	Н	515	515	11.265	0	0	11.265	3.177	14.442
T05	Radiological Work Permit	0.33	ea	Н	2.317	764	16.729	0	0	16.729	4.718	21.446
T06	ALARA Committee	1.00	ea	HC	60	60	1.231	0	0	1.231	347	1.578
T07	Analytical Lab - DAC	9.600.00	each	Н	0	0	0	211.200	0	211.200	0	211.200
T08	Nuclear Safety Support	1.00	each	HC	0	0	0	306.000	0	306.000	0	306.000
T10	Electrical Engineering	1.00	ea	Н	0	0	0	263.740	0	263.740	0	263.740
T11	Mechanical Engineering	1.00	ea	HC	0	0	0	279.000	0	279.000	0	279.000
T13	Fire Protection Engineering	1.00	ea	HC	0	0	0	153.000	0	153.000	0	153.000
T14	Emergency Preparedness	1.00	ea	HC	144	144	2.960	85.500	0	88.460	835	89.295
T15	Procedures	0.33	ea	HC	0	0	0	38.610	0	38.610	0	38.610
T16	Criticality Engineering	0.33	ea	HC	0	0	0	126.225	0	126.225	0	126.225
T17	Plan of the Week/DOD	1.00	ea	HC	936	936	24.551	0	0	24.551	6.923	31.475
T19	Proiect Safety Officer	1.00	each	HC	0	0	0	153.000	0	153.000	0	153.000
T20	Plant Review Committee	0.33	each	HC	104	34	900	5.834	0	6.735	254	6.988
T21	Health Physics And Instrumentation	0.33	ea	Н	0	0	0	82.148	0	82.148	0	82.148
T22	Radiological Management	1.00	each	HC	5.140	5.140	145.641	25.000	0	170.641	41.071	211.712
T23	Criticality Safety Officer	1.00	ea	HC	0	0	0	153.000	0	153.000	0	153.000
T24	Occurrence Reporting	1.00	each	HC	0	0	0	76.500	0	76.500	0	76.500

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Baseline Devl Proiect Rocky Flats Closure Project 1DAB WBS Filter Rasalina Cost and Rasis of Estimate

		Dascille Gost and Dasis of L	Juliaco	Acti	ivity Filter *		Sta	rts In FY *	
T27	Chemical Control Officer	0.33 ea HC 0	0	0	50.490	0	50.490	0	50.490
,	•	Total for Activity 1DB0440000:	30.511	736.656	3.464.878	628.385	4.829.920	207.737	5.037.657

Line Item OM04 - Configuration Control Authority (CCA)

1DAB04

1DB0440000

BOE

WBS No:

Activity ID:

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O

Item Desc - Configuration Control Authorities (CCA) are the single point work release for the authorization of activities in B776/777. The CCA ensures that activities are appropriately planned, scheduled, technically reviewed and may be conducted within the applicable authorization basis. The CCA shall be cognizant of safety system status in order to release work to be conducted within the AB. The CCA shall act as the emergency incident commander in the event that an upset condition arises or an emergency response is warranted.

Overtime required to support maintenance and emerging activities to ensure safety and operability of the facility is included in this basis of estimate.

Resource

ces		Cost Element		Skill		Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	K399S	Building 776 Project	Linear	10.800.00	Hours
	Factors	6 CCAs		1800 Hours per vear					
	751	OVERTIME BASE & PRE.	P170	OTHER ADMINISTRATIVE & PROFE	K399S	Building 776 Project	Linear	2.160.00	Hours
	Factors	10800 Hours ST		0.2 20% Overtime					

Line Item OM07 - Environmental Technical Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Acts as a single point of contact for all environmental compliance issues within designated buildings, reviews and approves Non Routine Waste Origination Logs, supports regulatory area inspections with CDPHE, EPA, DOE, and RFETS, and completes the appropriate pre- and post-status documents, maintains the Environmental Central File System for designated buildings, identifies corrective measures to environmental compliance related deficiencies and prepares environmental compliance action plans, maintains the Waste Stream and Residue Characterization book for the building, initiates the reactive chemical management plan ensuring the proper notification are made and that the treatment complies with the building authorization basis, documents any generator treatment performed in the building, and ensures that the building is supplied with adequate spill response equipment.

Resources

S			Cost Element				Skill			Department		Curve	Ouantity Units
	A5H	SUBCONT	TRACTED SRVS		E050	ENVIRO	NMENTAL ENGINEERS	K399S	Building	776 Project		Linear	288,000.00 Dollars
	Factors	2	Environmental ³	Technologist	ts	1800	hours per year		80	Dollars per hour RMRS Corporate			
	A5H	SUBCONT	TRACTED SRVS		P170	OTHER A	ADMINISTRATIVE & PROFE	K399S	Buildina	776 Project		Linear	166.400.00 Dollars
	Factors	1	Administrative 9	Sunnort Pers	connel	40	Hours per Week		52	Weeks per year	80	Dollars per h	our RMRS Corporate

Line Item OM08 - Utility Management

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Utility management includes the Utilities Manager and the Utilities Foreman, as follows:

The Utilities Manager oversees facility utility operations per DOE and Site Standards. Specific responsibilities include ensuring that utility systems and equipment function safely and properly; that surveillances are performed in a safe and timely manner; that applicable training and qualification standards are met by management, technical, and Stationary Operating Engineers; and that all activities are in concert with the plant, building , and programs objectives.

The Utilities Foreman directly oversees the daily SOE activities and ensures that all required activities are conducted in a safe, timely, and proper manner, and in accordance with management guidance.

Also included in this element are resources to cover the LO/TO requirements.

Resources Cost Element Department Curve **Ouantity** Unite A5H SUBCONTRACTED SRVS P170 OTHER ADMINISTRATIVE & PROFE | K399S | Building 776 Project 153.000.00 Dollars Linear

Hours/ea Factors dollars per hour Utiltiv Specialist 1800

Line Item OM09 - SOE's

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item BOE level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

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WBS No: 1DAB04 Activity ID: 1DB0440000

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter Baseline Devl 1DAB

Activity Filter *

Starts In FY

Item Desc - The Stationary Operating Engineers (SOEs) are required to be present around the clock and are on various jump shifts, 365 days per year to monitor both the control room and compressor house, and to make shiftly rounds. One SOE is required to cover the control room and one SOE is required to cover the compressor house and make shiftly rounds. Overtime is added to account for shift turnover, training, and absences due to illness, or vacations. SOEs also perform the following surveillances during their shiftly rounds: Photohelics; EGEN; Fan Operatibity; Oxygen Analyzers; and Hepa Filter Differential Pressure.

Resources

es		Cost Element		Skill		Department		Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	R070	WASTE TREATMENT OPERATOR A	KD10H	776 Complex Steelworkers		inear	22.942.44	Hours
	Factors	0.873 In FY-98 approximately 87.	3% of this	3 SOEs		24 Hours per day (over 3 shifts)	365	davs per vea	r (continuous co	verage)
	751	OVERTIME BASE & PRE.	R070	WASTE TREATMENT OPERATOR A	KD10H	776 Complex Steelworkers		inear	3.285.00	Hours
	Factors	1 hours shift overlap (0.5 hrs	per SOE	3 shifts		3 SOEs	365	per vear		
	751	OVERTIME BASE & PRE.	R070	WASTE TREATMENT OPERATOR A	KD10H	776 Complex Steelworkers		inear	1.997.28	Hours
	Factors	0.076 approximately 7.6% of the	overage	3 SOEs		24 Hours per day	365	days per year	to provide total	I

Line Item OM10 - Shift & Operations Orders

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0

Item Desc - Operations and Shift Orders Administration includes ongoing maintenance of all active building operations and shift orders by an experienced technical writer-administrator. Generally, the administrator updates existing orders in response to the building's day-to-day operating demands and in accordance with standing plant policies and procedures. In some cases, the administrator may develop an original order. In addition, the administrator processes the orders in accordance with plant and DOE standards, maintains an accurate and current working file, and maintains an up-to-date Operations Orders Manual. The administrator works in conjunction with building professional staff and management, subject matter experts, and other technical writers in order to ensure the accuracy, timeliness, and thoroughness of the operations orders.

Resources

es		(Cost Element			Skill			Department	Curve	Ouantity	Units
	A57	LATA		P160	TECHNIC	AL WRITERS AND EDITOR	K399S	Buildina	776 Proiect	Linear	108.000.00	Dollars
	Factors	60	dollars per hour		1800	hours						
	A57	LATA		P160	TECHNIC	AL WRITERS AND EDITOR	K399S	Buildina	776 Proiect	Linear	7.560.00	Dollars
	Factors	0.07	7% overtime		60	dollars per hour		1800	hours straight time			

Line Item OM12 - Decontamination

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev0.

Item Desc -

Provide as needed decontamination support to support various operations in B776/777.

Resources

es		Cost Element			Skill			Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	P090	INDUSTR	RIAL HYGIENISTS	K399S	Building	1776 Proiect	Linear	180.00	Hours
	Factors	1 Industrial Hygienist	•	. 9	Hours per day performing Be	e Decon	20	davs per vear performing Be Decon			
	750	STRAIGHT TIME BASE	T050	RADIATIO	ON CONTROL TECHNOLIGI	KD10H	776 Co	mplex Steelworkers	Linear	180.00	Hours
1	Factors	1 RCT		. 9	hours per dav Be Decon		20	davs performing Be decon per vear			
	750	STRAIGHT TIME BASE	T060	D&D HAZ	REDUC TECH / RISK RED	KD10H	776 Co	mplex Steelworkers	Linear	360.00	Hours
1	Factors	2 Process Specialists		. 9	hours per day for Be Decon		20	davs			
	751	OVERTIME BASE & PRE.	T060	D&D HAZ	Z REDUC TECH / RISK RED	KD10H	776 Co	mplex Steelworkers	Linear	150.26	Hours

Factors 8 hours per week Pu Decon 52 weeks per year 0.3612 82/227 Days remaining

Line Item OM14 - Management Assessment Program

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Coordination of Management Assessment Program for the 776/777 buildings. Reviews and tracks items identified through the performance of MAP's. Inputs actions into the PATS system and tracks to completion.

Resources

es	Cost Element	Skill	Department	Curve	Quantity Units
	A53 E-2	G010 ADMINISTRATIVE ASSISTANTS	K399S Building 776 Project	Linear	124.800.00 Dollars

Factors 52 weeks per year 60 dollars per hour 40 hours per week coordinate/administer

WBS No: 1DAB04 Activity ID: 1DB0440000

Rocky Flats Closure Project **Baseline Cost and Basis of Estimate**

Baseline Devl Proiect WBS Filter 1DAB Activity Filter

Starts In FY

Line Item OM15 - Custodial

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Custodial Support covers basic cleaning support including cleaning of locker rooms and restrooms, common areas, office areas, conference rooms. Tasks include floor maintenance (vacuuming, sweeping, mopping, and polishing), bathroom cleaning and stocking of supplies and materials, housekeeping, disposal of rubbish, dusting office furniture, and light outside cleaning and snow management.

Resource

rces			Cost Element			Skill	Department	Curve	Quantity	Units
	750	STRAIG	HT TIME BASE	L030	UTILITY	WORKER	KD10H 776 Complex Steelworkers	Linear	5.400.00	Hours
	Factors	3	Utility Workers		1800	Hours per vear				

Line Item OM16 - Laundry

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Laundry stocking includes sorting and distributing anti-c clothing within Buildings 776/777 and the B778 change room.

This pays for modesty clothing and anti-c clothing.

Resources

								1			
es		Cost Element			Skill		Department		Curve	Quantity	Units
	750	STRAIGHT TIME BASE	L090	GENERAL	LABORER	KD10H	776 Complex Steelworkers	L	_inear	786.00	Hours
	Factors	524 hours		1.5	50% increase in needs over	FY-99					
	750	STRAIGHT TIME BASE	T060	D&D HAZ I	REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	L	inear	624.00	Hours
	Factors	1 Process Specialist		. 8	Hours Straight Time per wee	ek	52 weeks per vear	1.5	50% increase	e in needs over	FY-99
	751	OVERTIME BASE & PRE.	T060	D&D HAZ I	REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	L	inear	1.248.00	Hours
	Factors	2 Process Specialists		. 8	Hours per week		52 weeks per vear	1.5	50% increase	e in needs over	FY-99
	A5F	CSS FIXED PRICE	0000	NONE		K260S	Site Operations	L	inear	720.000.00	Dollars
	Factors	60000 Dollars/Month		12	Months						

60000 Dollars/Month Factors

Line Item OM17 - Training

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Training Qualification for personnel attending courses required for job performance as defined in the Qualification Performance & Training records for each building specific department and skill code.

Education Reimbursement covers formal approved off-site educational programs and/or attendance at off-site training seminars that directly benefit the employees' performance.

The Training Coordinator ensures compliance with plant training standards, advises building management regarding training requirements, and provides guidance to the Training Scheduler for implementation of plantwide training standards.

The Training Scheduler provides logistics information regarding training sessions and schedules attendance of building personnel at required training courses.

Rad Ops Training funds support time spent in class to maintain sufficient qualifications.

Resources

						_	
es	Cost Element		Skill		Department	Curve	Ouantity Units
750	STRAIGHT TIME BASE	R070	WASTE TREATMENT OPERATOR A	KD10H	776 Complex Steelworkers	Linear	172.00 Hours
Factors	y 2 Personnel		86 Hours				
750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	1.656.00 Hours
Factors	s 18 Hours/quarterly module		23 RCTs		4 quarters		
750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	2.838.00 Hours
Factors	s 33 D&D Workers		86 hours each per vear genera	l training			
750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	180.00 Hours
Factors	s 10 Personnel		18 Hours (RCRA)				
751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	1.290.00 Hours
Factors	s 15 D&D Workers		86 hours each per vear genera	l training			

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A5M TRAVEL/TRAIN/RELOCAT 0000 NONE K399S Building 776 Project Linear 35.000.00 Dollars

Factors 3500 \$/s per Education Reimbursement 10 Personnel

Line Item OM18 - Price Anderson Coordination

BOE

WBS No:

Activity ID:

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity includes support for authorization, review, and processing of Price Anderson Amendment Act (PAAA) issues. These items include reviewing Occurrence Reports, Radiological Deficiency Reports (RDR), Facility assessments, audits and surveillance reports, and adverse trends and indicators. The PAAA Coordinator investigates and documents issues/events or conditions at the facility level to the degree deemed necessary by the PA Compliance Manager and/or the RMRS General Council. This may include such activities as attending fact-finding meetings, participating in root cause investigations, interviewing facility personnel, reviewing records, participating in the development of corrective actions and generating closure documentation. In addition, this line contains the work scope for the Commitments Tracking Coordinator who is responsible for tracking all external and internal commitments for B776/777 personnel. This includes Corrective Action Requests (CAR), Deficiency Reports (DR), Environmental Commitments, JCUSC Safety Concerns, Compliance Schedule Agreements (CSA), Short-Term Compliance Statements (STCS), and all DOE commitments. Responsible for ensuring status revision requests, interim certificates of completion, and final certificates of completion are submitted to site Commitments Tracking personnel as required.

Resources

es		Cost Element			Skill			Department	Curve	Quantity	Units
	A5H	SUBCONTRACTED SRVS	P170	OTHER	ADMINISTRATIVE & PROFE	K399S	Buildina	776 Proiect	Linear	72.800.00	Dollars
	Factors	20 Hours per week coordinating	a Price	52	weeks per vear		70	dollars per hour			
	A5H	SUBCONTRACTED SRVS	P170	OTHER	ADMINISTRATIVE & PROFE	K399S	Buildina	776 Proiect	Linear	65.520.00	Dollars
	P .	40					70	dellere e e le con			

Factors 18 hours per week for commitments 52 weeks per year 70 dollars per hour

Line Item SYS - Contingency And Escalation

BOE

Resources

es		Cost Element		Skill		Department	Curve	Ouantity	Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	205.023.10	Dollars
	Factors	205023 Dollars							
		ESCALATION	0000	NONE	ZDEPT	No Department	Linear	423.361.80	Dollars

Factors 423362 Dollars

Line Item T02 - Radiological Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Provides support services for ALARA, IWCPs, Building Assessments, Operation Orders, Technical Bases Documents, Radiological Deficiency Reports, Radiological Work Permits, Device/Source Audit Deliverables, ALARA job reviews and property/waste release evaluation database maintenance and Radiation Protection Program maintenance.

Resources

rces		Cost Element		Skill		Department	Curve	<i>Ouantity</i>	Units
	A5H	SUBCONTRACTED SRVS	E130	OTHER ENGINEERS	K399S	Building 776 Project	Linear	306.000.00	Dollars
	Enstann	2 Dadiological Cafety Engine		1000 hours nor year		OF nor hour			

Factors 2 Radiological Safety Engineer 1800 hours per year 85 per hour

Line Item T03 - Stepoff Pad

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity encompasses the radiological monitoring of equipment exiting the Radiological Controlled Areas. The proper release documentation of material and equipment leaving the radiological controlled areas is the responsibility of the set-off pad RCT. The step-off pad RCT responds to any contamination monitor alarm from personnel self-monitoring or personnel requesting help for self-monitoring. Equipment and personnel monitoring are required by the Site Radiological Control Manual and DOE Order 5400.5 to ensure the safety of the workers, the public and the environment. The step-off pad RCT also performance tests the instruments used at the step-off pad on a daily basis.

Resources

es		Cost Element		Skill		Department		Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers		Linear	2.340.00	Hours
I	actors	1 RCT		9 hrs per day		52 weeks	5	davs per wee	k	
	751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers		Linear	234.00	Hours

Factors 2340 Total ST hours 0.1 10% Over-Time 1 RCT

Line Item T04 - Contamination Control

BOE		
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1DAB04 WBS No: Activity ID: 1DB0440000

Rocky Flats Closure Project **Baseline Cost and Basis of Estimate**

Proiect Baseline Devl WBS Filter

1DAB

Activity Filter Starts In FY

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Identification of contamination sources to prevent the spreading of contamination in controlled areas and individual exposures. Detect contamination in cold areas; provide technical information on amount of contamination and degree of risk an corrective actions. Respond to SAAM alarms on off normal conditions, and respond to loss of contamination control issues, i.e., Radiological contamination of gloves, booties, and personnel. Perform prejob surveys on misc. minor tasks to ensure the Radiological Work Permits are adequate to control the work performed. Also, decontamination/contamination area rollback will be performed to increase work efficiency, reduce laundry costs, and minimize the generation of of radioactive waste. The process will include walls and floors, as well as all materials and equipment in the area to be downgraded, to be surveyed and/or decontaminated. A representative sample of rooms slated for decontamination is as follows: Rooms: 134E; 430; 463; 452; 131; 134; and 154A.

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	T050 RADI	ATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	468.00	Hours
_	Factors	2 Hours/day	234	working AWS davs					
	751	OVERTIME BASE & PRE.	T050 RADI	ATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	46.80	Hours
	Factors	0.1 10% Overtime	468	Straight Time Hours					

Line Item T05 - Radiological Work Permit

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O

Item Desc - Writing and distribution of Radiological Work Permits which define the safe radiological working parameters. Includes maintenance of a filing system to control the number of RWPs released and tracks returns to the RWP office through a daily log. Archiving of expired Radiological Work Permits and their supporting documentation is also performed. Issues and tracks return of Electronic Pocket Dosimeters (EPD). Records and tracks individual doses from EPDs. Files and archives all radiological surveys.

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	T050 RAD	DIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	2.106.00	Hours
	Factors	1 RCT	9	Hours per day		234 Working AWS days			
	751	OVERTIME BASE & PRE.	T050 RAD	DIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	210.60	Hours
	Factors	0.1 10% Overtime	21	06 Straight Time Hours					

Line Item T06 - ALARA Committee

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O.

Item Desc - Addresses radiological safety concerns and issues that have been identified by the building, programs, or an activity that was conducted. The Chairperson shall be the Operations/Facility Manager, or designee, and the committee shall consist of representatives from departments that support the area. Performs evaluations to determine whether activities are being conducted in accordance with the ALARA Program and implementing procedures. Formulates and coordinates the implementation of the Project Area ALARA goals. Meets monthly on any actions taken to resolve radiological issues, noteworthy ALARA accomplishments, ALARA concerns, etc.. Generates a status report of items discussed and/or acted upon. Includes walk-downs, meetings, reporting, etc..

Resources

es	Cost Element	Skill	Department	Curve Quantity Units	
	750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear 12.00 Hours	
	Factors 1 hour per monthly meeting	1 RCT	12 months		
	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear 24.00 Hours	
	Factors 1 hour per monthly meeting	2 Pipefitters	12 Months		
	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear 24.00 Hours	
	Factors 1 hours per monthly meeting	2 Process Specialists	12 months		

Line Item T07 - Analytical Lab - DAC

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Lab Support includes Offsite Commercial Support, Hot/Mixed Lab Support, Sample Team Support, and Mobile Lab Support . These activites are described below:

DAC Analytical Support - Gross Alpha analysis for the following items:

1) Gross Alpha (OS01-02)

 WBS No:
 1DAB04
 Rocky Flats Closure Project
 Project
 Baseline Devl

 Activity ID:
 1DB0440000
 Baseline Cost and Basis of Estimate
 WBS Filter
 1DAB

- 2) Radiological Screening (OS03-04)
- 3) Gross Alpha/Beta (OS05-17)
- 4) Gross Alpha/Beta Air Filters (OS18-20)
- 5) Air Filter Loeading, Unloading, and Compositing (OS-21)

The type and quantity of the analysis performed is dependent on project customer needs as well as the laboratory capability and capacity.

Resources Cost Element Skill Department Curve Quantity Units A5H SUBCONTRACTED SRVS 0000 NONE K267S Analytical Laboratory Services Linear 22.00Dollars

Factors 22 dollars per DAC Sample

Line Item T08 - Nuclear Safety Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This function is performed by Nuclear Safety Engineering which provides nuclear technical support, facility safety analysis, Unreviewed Safety Question Determination (USQD) of activities and documents submitted for review, participation in the Operational Review Committee (ORC) process to clarify and advise members on issues concerning USQDs, Safety Evaluation Screens (SESs), and Operational Safety Requirements/Technical Safety Requirements (OSR/TSR) page changes and guidance. Historically, three engineers have been required to perform this scope.

Resources

es	Cost Element	Skill	Department	Curve	Quantity	Units
	A52 TENERA	E080 NUCLEAR (CRITICALITY) ENGINEER	K399S Building 776 Project	Linear	306.000.00	Dollars

Factors 2 Nuclear Safety Engineer 85 dollars per hour 1800 hours per year each

Line Item T10 - Electrical Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Electrical Engineering serves as Subject Matter Expert on all electrical power related equipment and systems, supports IWCP, performs engineering operability evaluations on an as-needed basis; supports authorization basis activities, and serves as liaison/Point of Contact with RMRS Central Engineering on building engineering matters. Additionally, This position will provide engineering support for procedure development, system walkdown and one line drawing development, labeling of key components and development of system descriptions.

Resources

s	(Cost Element			Skill			Department		Curve	Ouantity	Units
Α	52 TENERA		E040	ELECTR	RICAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	81.600.00	Dollars
Fac	tors 1	Electrical Engineer		12	packages per vear		80	hours per design modification	85	dollars per hour		
Α	52 TENERA		E040	ELECTR	RICAL ENGINEERS	K399S	Building	776 Proiect		Linear	35.700.00	Dollars
Fac	tors 1	Electrical engineers		12	EOEs per vear		35	hours per Engineering Operability	85	dollars per hour		
Α	52 TENERA		E040	ELECTR	RICAL ENGINEERS	K399S	Buildina '	776 Proiect		Linear	53.040.00	Dollars
Fac	tors 2	LO/TOs per week		6	hours support for Lockout/Ta	agout	52	Weeks per vear	85	dollars per hour		
Α	52 TENERA		E040	ELECTR	RICAL ENGINEERS	K399S	Buildina '	776 Proiect		Linear	51.000.00	Dollars
Fac	tors 1	Electrical Engineer		15	ESPs per vear		40	hours per Enaineerina Support	85	dollars per hour		
Α	57 LATA		E040	ELECTR	RICAL ENGINEERS	K399S	Buildina '	776 Proiect		Linear	28.000.00	Dollars
Fac	tors 70	dollars per hour		10	hours support to Standard V	Vork	40	SWPs requiring EE support				
Α	57 LATA		E040	ELECTR	RICAL ENGINEERS	K399S	Building	776 Proiect		Linear	14.400.00	Dollars
Fac	tors 1	electrical engineer		10	calculation in support of vari	ous	24	hours per electrical calculation	60	dollars per hour		

Line Item T11 - Mechanical Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Mechanical Engineering serves as a subject matter expert on all mechanical equipment related systems. Additionally, this discipline will provide engineering support for procedure development, system walkdowns, and one line drawing development, labeling of key components, and development of system descriptions.

Resources

es		(Cost Element			Skill			Department	Curve	Quantity	Units
Į	A52	TENERA		E070	MECHAN	ICAL ENGINEERS	K399S	Buildina	776 Proiect	Linear	153.000.00	Dollars
	Factors	1	Mechanical Engineer		1800	Hours per vear		85	dollars per hour			
Į	A57	LATA		E070	MECHAN	ICAL ENGINEERS	K399S	Buildina	776 Proiect	Linear	126.000.00	Dollars
	Factors	70	dollars per hour		1	Mechanical Engineers		1800	hours each per year			

Starts In FY

Rocky Flats Closure Project **Baseline Cost and Basis of Estimate** Proiect Baseline Devl WBS Filter 1DAB Activity Filter

Starts In FY

1DB0440000 Line Item T13 - Fire Protection Engineering

1DAB04

BOE

WBS No:

Activity ID:

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O.

Item Desc - Fire Protection Engineering provides technical support and fire hazards analysis for the building.

Resources

es	Cost Element	Skill	Department	Curve	Ouantity Units
	A52 TENERA	E130 OTHER ENGINEERS	K252S Engineering	Linear	153.000.00 Dollars

Factors 85 dollars per hour 1800 hours

Line Item T14 - Emergency Preparedness

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Administers the implementation of the RFETS Emergency Preparedness Program for the protection of personnel, the public, and the environment during emergency response. Develops and implements of the Building Emergency Program, provides technical assistance to building management for development and conduct of building drills, provides procedure review and approval and trains the Building Emergency Preparedness Personnel on new procedures and development processes.

Develop/conduct building emergency drills.

B./C./D. Drill controller/evaluator.

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	48.00	Hours
	Factors	2 RCT		2 hours per drill		12 Drills per vear			
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	96.00	Hours
-	Factors	4 Process Specialist		2 hours per drill		12 Drills per vear			
	A52	TENERA	P170	OTHER ADMINISTRATIVE & PROFE	K399S	Building 776 Project	Linear	85.500.00	Dollars
	_	*							

Factors Bepa Consultant \$'s/Hour 1800 Hours 0.5

Line Item T15 - Procedures

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - The Procedure Administration function includes development, updates, modifications and issuance of procedures to operate the facility.

Resources

3	Cost Elemen	nt .	Skill		Department		Quantity	Units
	A57 LATA	P160 TE	CHNICAL WRITERS AND EDITOR	K399S Building	776 Project	Linear	117,000.00	Dollars
	- 4 D I	147.	05 111 1	4000				

Procedure Writer Factors 1 dollars per hour 1800 hours each per veal

Line Item T16 - Criticality Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - The Criticality Engineer provides the building with criticality safety analysis that is in conformance to applicable standards, rules, and orders to provide guidance in the form of limits and procedures which ensure the subcriticality of the building's fissile material handling, processing, and storage operations. Two Criticality Engineers are required plus 0.5 for the Lead Criticality Engineer.

Resources Cost Element A5H SUBCONTRACTED SRVS E080 NUCLEAR (CRITICALITY) ENGINEER K399S Building 776 Project Linear 382.500.00 Dollars

hours each per year Criticality Safety Engineers Factors 125 dollars per hour 1.7

Line Item T17 - Plan of the Week/DOD

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O

Item Desc - The Plan of the Week (POW) is a meeting held each week to plan all work activities for the coming week, discuss the current Facility condition, radiological concerns, to update the activity schedule, set priorities, and allocate resources. The Plan of the Week coordinator is funded in this activity.

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Baseline Devl Proiect **Rocky Flats Closure Project** WBS Filter 1DAB **Baseline Cost and Basis of Estimate**

			Activity Filler		Starts In F I	
Resources	Cost Element	Skill	Department	Curve	Ouantity	Units
	750 STRAIGHT TIME BASE	P170 OTHER ADMINISTRATIVE & PROFE	R100S RMRS Salaried	Linear	936.00	Hours

Factors 18 Hours per week Weeks per year

Line Item T19 - Project Safety Officer

1DAB04

1DB0440000

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - A. Perform required Health and Safety activities. Identify hazards and potential accident producing situations within the work place. Review work packages, engineering work orders and equipment installation or maintenance for safety systems and interlock functions. Promote and maintain awareness through employee participation, enforcement of safety rules, accident tracking, and trending and corrective actions.

B. ASME registration and training required to perform required Health and Safety activities above.

Resources

WBS No:

Activity ID:

es		Cost Element		Skill		Department	Curve	Quantity	Units
	A5H	SUBCONTRACTED SRVS	P090	INDUSTRIAL HYGIENISTS	K399S	Building 776 Project	Linear	153.000.00	Dollars

Factors 1 Industrial Hygienist 1800 Hours per year 85 dollars per hour

Line Item T20 - Plant Review Committee

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Plant Review Committee is a new requirement being planned for in FY-99.

Resources

es			Cost Element			Skill			Department		Curve	Ouantity	Units
	750	STRAIGI	HT TIME BASE	P170	OTHER	ADMINISTRATIVE & PROFE	R100S	RMRS S	Salaried		Linear	104.00	Hours
	Factors	2	hours per week		52	weeks per vear							
Į	A5H	SUBCON	NTRACTED SRVS	E080	NUCLE	AR (CRITICALITY) ENGINEER	K399S	Buildina	776 Proiect		Linear	8.840.00	Dollars
	Factors	1	Nuclear Safety Profession	aļ	2	hours per week		52	Weeks per vear	85	dollars per hou	ur	
Į	A5H	SUBCON	NTRACTED SRVS	E110	QUALIT	Y CONTROL ENGINEERS	K399S	Buildina	776 Proiect		Linear	8.840.00	Dollars
	Factors	1	QA Professional		2	Hours per week		52	weeks per year	85	dollars per hou	ur	

Line Item T21 - Health Physics And Instrumentation

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc -

A. Leased Labor cost of calibrations of instruments used by building radiation control personnel and other building personnel: Alphamets - 114 hrs, A-100 - 176 hrs, Mircorem - 90 hrs, DRDs - 46 hrs, SAC-4 - 160 hrs, Electras - 441 hrs, Hi Vol Samplers - 34 Hrs, Lo Vol Samplers - 40 hrs, Ludlum 12-1A - 224 hrs, Ludlum 12-4 - 247 hrs, Ludlum 31 - 7 hrs, Ludlum 2 - 5 hrs, PCM-2 - 1100 hrs, RO-20 - 605 hrs, SAIC AP-2 - 16 hrs, for a total of 3305 hrs

Parts, supplies and overhead costs of calibration of instruments used by building radiation control personnel and other building personnel: Balances, 02 Analyzers, magnahelics, photohelics, pressure differentials, torque wrenches, PCM-2s, Ludlums, etc.

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	A5C	SUPPLIES	0000	NONE	K399S	Building 776 Project	Linear	18,000.00	Dollars
-	Factors	18000 Dollars for supplies							
	A5H S	SUBCONTRACTED SRVS	P170	OTHER ADMINISTRATIVE & PROFE	K399S	Building 776 Project	Linear	230.934.00	Dollars
	Factors	66 dollars per hour		3499 Hours					

dollars per hour Factors Line Item T22 - Radiological Management

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc -

Resources	Resources Cost Element			Skill			Department	Curve	<i>Ouantity</i>	Units	
	750	STRAIG	SHT TIME BASE	M010	FOREMEN	N / TEAM LEADS / GROUP	R100S	RMRS Salaried	Linear	3.600.00	Hours
	Factors	2	Radiological Foreman		1800	Hours each					

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WBS No: 1DAB04 Activity ID: 1DB0440000

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750 STRAIGHT TIME BASE	M010 FOREMEN / TEAM LEADS / GROUP	R100S RMRS Salaried	Linear	1.000.00 Hours
Factors 1 Off-shift Supervisor	1000 hours per vear			
751 OVERTIME BASE & PRE.	M010 FOREMEN / TEAM LEADS / GROUP	R100S RMRS Salaried	Linear	540.00 Hours
Factors 0.15 15% Overtime	3600 hours Straight time			
A5C SUPPLIES	0000 NONE	K399S Building 776 Project	Linear	25.000.00 Dollars

Factors 25000 Misc Supplies

Line Item T23 - Criticality Safety Officer

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

The Criticality Safety Officer performs the duties set forth in the Nuclear Criticality Safety Manual including serving as liaison for the criticality safety matters between organizations that have custody of fissionable material and all other organizations, coordination of requests for Critical Safety Engineer, and preparation of criticality safety limit postings. Also included is the annual assessments.

Resources

es		Cost Element		ost Element			Skill		Department			Curve	Quantity	Units
	A5H	SUBCON	TRACTED SRVS	F	2170	OTHER A	ADMINISTRATIVE & PRO	OFE F	R100S	RMRS Salaried		Linear	153,000.00	Dollars
	Factors	1800	Hours/ea			85	dollars per hour							

Factors 1800 Hours/ea

Line Item T24 - Occurrence Reporting

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity consists of support required to maintain occurrence reporting requirements, including preparing and uploading of notifications, conducting investigations and critiques as necessary, processing 10-day update reports, preparing root cause analysis reports and process final reports for DOE approval. In addition, required reading is included in this work scope.

Resource

rces	Cost Element	Skill	Department	Curve	Ouantity	Units
	A5H SUBCONTRACTED SRVS	P170 OTHER ADMINISTRATIVE & PROFE	K399S Building 776 Project	Linear	76.500.00	Oollars

Factors 900 Hours per year Occurrence Reporting Professional dollars per hour

Line Item T27 - Chemical Control Officer

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Serves as the single point of contact for chemical management within the Building 776/777 complex, maintains the Chemical Management Plan, maintains a list of chemical storage sites, maintains the Chemical Management Data Base, tracks the quantities of chemicals in the Building 776/777 complex and conducts bi-annual wall-to-wall inventories and random inventories as needed, reviews and approves requisitions for chemicals, maintains Material Safety Data Sheets for chemicals stored in the Building 776/777 complex, works with managers, supervisors and other staff to develop and implement appropriate chemical procedures and practices and performs the monthly inspections of flammable cabinets.

Resources

es			Cost Element			Skill			Department	Curve	Ouantity	Units
	A5H	SUBCON	NTRACTED SRVS	P170	OTHER A	DMINISTRATIVE & PROFE	K399S	Building	776 Project	Linear	153,000.00	Dollars
	Factors	1	Chemical Control Officer		1800	Hours		85	dollars per hour			

Activity ID: 1DF0401M00 Description: EV-01 B776 Operations Management

ACTIVITY ID. IDI	Description. 11-01 Biro Operations ividi	agement						Cost Risk	2 Schedule I	tisk 5		
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub		Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
OM04	Configuration Control Authority (CCA)	1.00	ea	HC	12.960	12.960	347.782	0	0	347.782	165.892	513.673
OM07	Environmental Technical Support	1.00	ea	HC	0	0	0	454.400	0	454.400	0	454.400
OM08	Utility Management	1.00	ea	HC	0	0	0	153.000	0	153.000	0	153.000
OM09	SOE's	1.00	ea	HC	20.148	20.148	449.298	0	0	449.298	214.315	663.613
OM10	Shift & Operations Orders	1.00	ea	HC	0	0	0	61.560	0	61.560	0	61.560
OM12	Decontamination	1.00	ea	Н	1.136	1.136	30.807	0	0	30.807	14.695	45.503
OM14	Management Assessment Program	1.00	ea	Н	0	0	0	124.800	0	124.800	0	124.800
OM15	Custodial	1.00	ea	HC	5.400	5.400	91.152	0	0	91.152	43.480	134.631
OM16	Laundry	1.00	ea	HC	2.658	2.658	63.408	1.062.000	0	1.125.408	30.245	1.155.653
OM17	Training	1.00	ea	HC	14.496	14.496	451,477	304.000	0	755.477	215.354	970.831

Cost Pick

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Baseline Devl Proiect Rocky Flats Closure Project WBS Filter 1DAB **Baseline Cost and Basis of Estimate**

						Activi	iv ruier		SIU	118 111 1 1	
OM18	Price Anderson Coordination	1.00 each	HC	0	0	0	128.440	0	128,440	0	128,440
SYS	Contingency And Escalation	1.00 ea	EE	0	0	0	0	233.084	233.084	0	233.084
,	т	otal for Activity 1DF04	01M00·		56 798	1 433 924	2 288 200		3 955 207	683 982	4 639 189

Line Item OM04 - Configuration Control Authority (CCA)

1DAB04

1DF0401M00

BOE

WBS No:

Activity ID:

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Configuration Control Authorities (CCA) are the single point work release for the authorization of activities in B776/777. The CCA ensures that activities are appropriately planned, scheduled, technically reviewed and may be conducted within the applicable authorization basis. The CCA shall be cognizant of safety system status in order to release work to be conducted within the AB. The CCA shall act as the emergency incident commander in the event that an upset condition arises or an emergency response is warranted.

Overtime required to support maintenance and emerging activities to ensure safety and operability of the facility is included in this basis of estimate.

Resources

es		Cost Element		Skill		Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	P170 C	OTHER ADMINISTRATIVE & PROFE	K399S	Building 776 Project	Linear	10.800.00	Hours
	Factors	6 CCAs		1800 Hours per vear					
	751	OVERTIME BASE & PRE.	P170 C	OTHER ADMINISTRATIVE & PROFE	K399S	Building 776 Project	Linear	2.160.00	Hours
	Factors	10800 Hours ST		0.2 20% Overtime					

Line Item OM07 - Environmental Technical Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O

Item Desc - Acts as a single point of contact for all environmental compliance issues within designated buildings, reviews and approves Non Routine Waste Origination Logs, supports regulatory area inspections with CDPHE, EPA, DOE, and RFETS, and completes the appropriate pre- and post-status documents, maintains the Environmental Central File System for designated buildings, identifies corrective measures to environmental compliance related deficiencies and prepares environmental compliance action plans, maintains the Waste Stream and Residue Characterization book for the building, initiates the reactive chemical management plan ensuring the proper notification are made and that the treatment complies with the building authorization basis, documents any generator treatment performed in the building, and ensures that the building is supplied with adequate spill response equipment.

Resources

es		Cost Element			Skill			Department		Curve	Ouantity	Units
	A5H SUBCO	NTRACTED SRVS	E050	ENVIRO	NMENTAL ENGINEERS	K399S	Building	776 Project		Linear	288,000.00	Dollars
F	actors 2	Environmental Technologi	ists -	1800	hours per vear		80	Dollars per hour RMRS Corporate	1			
	A5H SUBCO	NTRACTED SRVS	P170	OTHER	ADMINISTRATIVE & PROFE	K399S	Buildina	776 Proiect		Linear	166.400.00	Dollars
F	actors 1	Administrative Support Pe	rsonnel	40	Hours per Week		52	Weeks per year	80	Dollars per he	our RMRS Corp	orate

Line Item OM08 - Utility Management

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Utility management includes the Utilities Manager and the Utilities Foreman, as follows:

The Utilities Manager oversees facility utility operations per DOE and Site Standards. Specific responsibilities include ensuring that utility systems and equipment function safely and properly; that surveillances are performed in a safe and timely manner; that applicable training and qualification standards are met by management, technical, and Stationary Operating Engineers; and that all activities are in concert with the plant, building , and programs objectives.

The Utilities Foreman directly oversees the daily SOE activities and ensures that all required activities are conducted in a safe, timely, and proper manner, and in accordance with management quidance.

Resources

3		Cost Etement		SKIII		Debar	rimeni	Curve	Quantity	Unus	
	A5H SUBCC	NTRACTED SRVS	P170 OTHER	R ADMINISTRATIVE & PROFE	K399S	Buildina 776 Proi	ect	Linear	153.000.00	Dollars	
	Factors 95	dollare per hour	1	Lititiv Specialist Theorefold		1900 Houre/	22				

Factors

Line Item OM09 - SOE's

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - The Stationary Operating Engineers (SOEs) are required to be present around the clock and are on various jump shifts, 365 days per year to

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WBS No: 1DAB04 Activity ID: 1DF0401M00

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

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monitor both the control room and compressor house, and to make shiftly rounds. One SOE is required to cover the control room and one SOE is required to cover the compressor house and make shiftly rounds. Overtime is added to account for shift turnover, training, and absences due to illness, or vacations. SOEs also perform the following surveillances during their shiftly rounds: Photohelics; EGEN; Fan Operatibity; Oxygen Analyzers; and Hepa Filter

Resources

es		С	ost Element			Skill			Department		Curve	Ouantity	Units
	750	STRAIGHT	T TIME BASE	R070	WASTE '	TREATMENT OPERATOR A	KD10H	776 Co	mplex Steelworkers		Linear	17.589.21	Hours
	Factors	0.873	In FY-98 approximately 87.	3% of this	2.3	SOEs		24	Hours per day (over 3 shifts)	365	davs per vea	r (continuous co	verage)
	751	OVERTIM	E BASE & PRE.	R070	WASTE '	TREATMENT OPERATOR A	KD10H	776 Co	mplex Steelworkers		Linear	2.558.80	Hours
	Factors	0.127	approximately 12.7% of the	coverage	2.3	SOEs		24	Hours per day	365	davs per vea	to provide total	

Line Item OM10 - Shift & Operations Orders

Differential Pressure.

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Operations and Shift Orders Administration includes ongoing maintenance of all active building operations and shift orders by an experienced technical writer-administrator. Generally, the administrator updates existing orders in response to the building's day-to-day operating demands and in accordance with standing plant policies and procedures. In some cases, the administrator may develop an original order. In addition, the administrator processes the orders in accordance with plant and DOE standards, maintains an accurate and current working file, and maintains an up-to-date Operations Orders Manual. The administrator works in conjunction with building professional staff and management, subject matter experts, and other technical writers in order to ensure the accuracy, timeliness, and thoroughness of the operations orders.

Resources

es			Cost Element			Skill			Department	Curve	Quantity	Units
	A57	LATA		P160	TECHN	IICAL WRITERS AND EDITOR	K399S	Buildina	776 Proiect	Linear	54.000.00	Dollars
	Factors	60	dollars per hour Chartrand		900	hours						
	A57	LATA		P160	TECHN	IICAL WRITERS AND EDITOR	K399S	Buildina	776 Proiect	Linear	7.560.00	Dollars
	Factors	0.07	7% overtime		60	dollars per hour		1800	hours straight time			

Line Item OM12 - Decontamination

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev0.

Resources

s	Cost Element	Skill Department	Curve	Ouantity Units
	750 STRAIGHT TIME BASE	P090 INDUSTRIAL HYGIENISTS R100S RMRS Salaried	Linear	180.00 Hours
Fa	ctors 1 Industrial Hygienist	9 Hours per dav performing Be Decon 20 davs per vear performing Be Decon		
	750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI KD10H 776 Complex Steelworkers	Linear	180.00 Hours
Fa	actors 1 RCT	9 hours per day Be Decon 20 days performing Be decon per year		
	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers	Linear	360.00 Hours
Fa	ctors 2 Process Specialists	9 hours per day for Be Decon 20 days		
	751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED KD10H 776 Complex Steelworkers	Linear	416.00 Hours
Fa	hours per week Pu Decon	52 weeks per year		

Line Item OM14 - Management Assessment Program

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Coordination of Management Assessment Program for the 776/777 buildings. Reviews and tracks items identified through the performance of MAP's. Inputs actions into the PATS system and tracks to completion.

Resource

ırces	Cost Element		Skill		Department		Curve	<i>Ouantity</i>	Units		
	A53 E-2	P170	OTHER ADMI	NISTRATIVE & PROFE	K399S	Buildina 7	76 Proiect	Linear	124.800.00	Dollars	
	Factors 52 weeks p	er year Scott	60 do	llars per hour		40	hours per week coordinate/administe	er			

Line Item OM15 - Custodial

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Custodial Support covers basic cleaning support including cleaning of locker rooms and restrooms, common areas, office areas, conference rooms. Tasks include floor maintenance (vacuuming, sweeping, mopping, and polishing), bathroom cleaning and stocking of supplies and materials, housekeeping,

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 WBS No:
 1DAB04
 Rocky Flats Closure Project

 Activity ID:
 1DF0401M00
 Baseline Cost and Basis of Estimate

Proiect WBS Filter

Baseline Devl

Activity Filter * Starts In FY

Curve

Linear

Units

5.400.00 Hours

disposal of rubbish, dusting office furniture, and light outside cleaning and snow management.

Resources	Cost Element	Skill	Department		
	750 STRAIGHT TIME BASE	L030 UTILITY WORKER	KD10H 776 Complex Steelworkers		

Factors 3 Utility Workers 1800 Hours per year

Line Item OM16 - Laundry

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Laundry stocking includes sorting and distributing anti-c clothing within Buildings 776/777 and the B778 change room.

This pays for modesty clothing and anti-c clothing.

Resources

s	Cost Element	Skill	Department	Curve Quantity Units
	750 STRAIGHT TIME BASE	L090 GENERAL LABORER	C235S Laundry Services	Linear 786.00 Hours
F	Factors 524 hours	1.5 50% increase in needs over	r FY-99	
L	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear 624.00 Hours
F	Factors 1 Process Specialist	8 Hours Straight Time per we	ek 52 weeks per vear	1.5 50% increase in needs over FY-99
L	751 OVERTIME BASE & PRE.	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear 1.248.00 Hours
F	Factors 2 Process Specialists	8 Hours per week	52 weeks per vear	1.5 50% increase in needs over FY-99
L	A5F CSS FIXED PRICE	0000 NONE	K260S Site Operations	Linear 1.062.000.00 Dollars
F	Factors 59000 Dollars/Month 2/00-4/00	12 Months	1.5 usage rate	

Line Item OM17 - Training

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Training Qualification for personnel attending courses required for job performance as defined in the Qualification Performance & Training records for each building specific department and skill code.

Education Reimbursement covers formal approved off-site educational programs and/or attendance at off-site training seminars that directly benefit the employees' performance.

The Training Coordinator ensures compliance with plant training standards, advises building management regarding training requirements, and provides guidance to the Training Scheduler for implementation of plantwide training standards.

The Training Scheduler provides logistics information regarding training sessions and schedules attendance of building personnel at required training courses.

Rad Ops Training funds support time spent in class to maintain sufficient qualifications.

Resources

s	Cost Element		Skill				Department	Curve	<i>Ouantity</i>	Units
750	STRAIGHT TIME BASE	C020	ELECTRICIANS		KD10H	776 Comple	ex Steelworkers	Linear	774.00	Hours
Factors	9 Personnel		86 Hours							
750	STRAIGHT TIME BASE	R070	WASTE TREATMENT	OPERATOR A	KD10H	776 Comple	ex Steelworkers	Linear	1.204.00	Hours
Factors	14 Personnel		86 Hours							
751	OVERTIME BASE & PRE.	E130	OTHER ENGINEERS		R100S	RMRS Sala	aried	Linear	516.00	Hours
Factors	6 Personnel	1	86 Hours							
751	OVERTIME BASE & PRE.	T050	RADIATION CONTRO	L TECHNOLIGI	KD10H	776 Comple	ex Steelworkers	Linear	3.240.00	Hours
Factors	18 Hours/quarterly module	1	45 RCTs			_4 a	uarters			
751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TE	CH / RISK RED	KD10H	776 Comple	ex Steelworkers	Linear	162.00	Hours
Factors	9 Personnel		18 Hours (RC	RA)		1				
751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TE	CH / RISK RED	KD10H	776 Comple	ex Steelworkers	Linear	7.224.00	Hours
Factors	84 D&D Workers		86 hours each	per vear general	training	1				
751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TE	CH / RISK RED	KD10H	776 Comple	ex Steelworkers	Linear	1.376.00	Hours
Factors	16 Personnel	1	86 Hours							
A5H	SUBCONTRACTED SRVS	P150	TRAINERS		K399S	Buildina 77	6 Proiect	Linear	144.000.00	Dollars
Factors	 Subcontracted Trainer Ran 	dozzo	1800 hours			80 d	ollars per hour			

WBS No: 1DAB04 Rocky Flats Closure Project Baseline Devl 1DF0401M00 RMS Filter Activity Filter

A5H SUBCONTRACTED SRVS P150 TRAINERS R100S RMRS Salaried Linear

 A5H
 SUBCONTRACTED SRVS
 P150
 TRAINERS
 R100S
 RMRS Salaried
 Linear
 90.000.00
 Dollars

 Factors
 1
 RMRS Trainer Mendoza
 1800
 hours
 50
 dollars per hour

 A5M
 TRAVEL/TRAIN/RELOCAT
 0000
 NONE
 K399S
 Building 776 Project
 Linear
 70.000.00
 Dollars

Factors 3500 \$/s per Education Reimbursement 20 Personnel

Line Item OM18 - Price Anderson Coordination

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - This activity includes support for authorization, review, and processing of Price Anderson Amendment Act (PAAA) issues. These items include reviewing Occurrence Reports, Radiological Deficiency Reports (RDR), Facility assessments, audits and surveillance reports, and adverse trends and indicators. The PAAA Coordinator investigates and documents issues/events or conditions at the facility level to the degree deemed necessary by the PA Compliance Manager and/or the RMRS General Council. This may include such activities as attending fact-finding meetings, participating in root cause investigations, interviewing facility personnel, reviewing records, participating in the development of corrective actions and generating closure documentation. In addition, this line contains the work scope for the Commitments Tracking Coordinator who is responsible for tracking all external and internal commitments for B776/777 personnel. This includes Corrective Action Requests (CAR), Deficiency Reports (DR), Environmental Commitments, JCUSC Safety Concerns, Compliance Schedule Agreements (CSA), Short-Term Compliance Statements (STCS), and all DOE commitments. Responsible for ensuring status revision requests, interim certificates of completion, and final certificates of completion are submitted to site Commitments Tracking personnel as required.

Resources

es	Cost Element	Skill	Department	Curve	Quantity Units
	A5H SUBCONTRACTED SRVS	P170 OTHER ADMINISTRATIVE & PROFE	K399S Building 776 Project	Linear	67.600.00 Dollars
	Factors 20 Hours per week coordinate	ating Price 52 weeks per vear	65 Dollars per hour		
	A5H SUBCONTRACTED SRVS	P170 OTHER ADMINISTRATIVE & PROFE	K399S Building 776 Project	Linear	60.840.00 Dollars
	- 10 1 11		0- 1 11 1		

Factors 18 hours per week for commitments 52 weeks per year 65 dollars per hour

Line Item SYS - Contingency And Escalation

BOE

Resources

es		Cost Element		Skill		Department	Curve	<i>Ouantity</i>	Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	140.433.20	Dollars
	Factors	140433 Dollars							
	ESC	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	92.650.54	Dollars

Factors 92650.5 Dollars

Activity ID:	1DF0401M10	Description: FY-01 Personnel Relo & Property Disposition

Cont Dist	2	C.1. 1.1. D:1	
Cost Risk		Schedule Risk	

Starts In FY

,	Description 1. C.	DD 0.11, D.OD.		CONTRACT 2 SCHOOL TEST								
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
776-1CPA	Computer/Comm. Equipment Disposition	0.00	P1CPA	HC	#Num!	0	0	0	0	0	0	0
776-1FPA	Office Furniture Disposition	0.00	P1FPA	HC	#Num!	0	0	0	0	0	0	0
776-PersonnelRel	Personnel Relocation	22.00	each	HC	0	0	0	9.512	0	9.512	0	9.512
SYS	Contingency And Escalation	1.00	ea	EE	0	0	0	0	503	503	0	503
	0	0	9.512	503	10.015	0	10.015					

Line Item 776-1CPA - Computer/Comm. Equipment Disposition

BOE Resource Line Iter

Resource unit values are from Disposal Cost Model. Line Item quantity for FY-01 is planned to be insignificant. This line item is being included in the work plan for future modification if necessary.

Resources

es		Cost Element		Skill		Department	Curve	Ouantity Units
	750 STRA	IGHT TIME BASE	E120	SAFETY ENGINEERS	C100S	Closure Site Services	Linear	0.20 Hours
	Factors 0.2	Hazard Assessment	,					
Į	750 STRA	IGHT TIME BASE	L050	MISSION SUP SPEC I (CBLFAB.DSP.	C270S	Property Management	Linear	0.20 Hours
ı	Factors 0.2	Readiness/Removal	ı					
Į	750 STRA	IGHT TIME BASE	L070	MISSION SUP SPEC III	C270S	Property Management	Linear	0.10 Hours
ı	Factors 0.1	Material Handling	ı					
Į	750 STRA	IGHT TIME BASE	M020	MANAGERS (GRADE 69 - 72)	C270S	Property Management	Linear	0.10 Hours
ı	Factors 0.1	Administrative	ı					
Į	750 STRA	IGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	C242S	Transportation	Linear	0.20 Hours
ı	Factors 0.2	2 Transportation	ı					
Į	750 STRA	IGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	C270S	Property Management	Linear	0.25 Hours
	Factors 0.2	25 Administrative						

WBS No: 1DAB04 *Activity ID:* 1DF0401M10

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect Baseline Devl WBS Filter 1DAB Activity Filter *

Starts In FY *

Line Item 776-1FPA - Office Furniture Disposition

BOE

Resource unit values are from Disposal Cost Model.

Line Item quantity for FY-01 is planned to be insignificant. This line item is being included in the work plan for future modification if necessary.

Resources

es		С	ost Element		Skill		Department	Curve	Quantity	Units
	750	STRAIGHT	TTIME BASE	L050	MISSION SUP SPEC I (CBLFAB.DSP.	C270S	Property Management	Linear	0.30	Hours
,	Factors	0.3	Readiness/Removal							
Į	750	STRAIGHT	TTIME BASE	L070	MISSION SUP SPEC III	C270S	Property Management	Linear	0.10	Hours
r	Factors	0.1	Material Handling							
Į	750	STRAIGHT	TTIME BASE	M020	MANAGERS (GRADE 69 - 72)	C270S	Property Management	Linear	0.10	Hours
r	Factors	0.1	Administrative							
Į	750	STRAIGHT	TTIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	C242S	Transportation	Linear	0.20	Hours
ı	Factors	0.2	Transportation						,	
Į	750	STRAIGHT	TTIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	C270S	Property Management	Linear	0.25	Hours

Factors 0.25 Administrative Line Item 776-PersonnelRelo - Personnel Relocation

ROF

Historical Data Source - Personnel Relocation Planning Template (3/12/99) and associated guidance on average cost for relocation.

Item Desc - Relocate Personnel Supporting B776/777 Closure

Breakdown of Historical Data: Item - Personnel Relocation

Units - ea

Unit Cost - 432.35

Unit Cost Adjustment factor - None

Revised Unit Cost - 432.35 Basis for adjustment -

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	A5H	SUBCONTRACTED SRVS	0000	NONE	C100S	Closure Site Services	Linear	432.35	Dollars

Factors 432.35 Dollars per employee relocation

Line Item SYS - Contingency And Escalation

BOE

Resources

ces		Cost Element	Skill		Department	Curve	Ouantity	Units
[CON	CONTINGENCY	0000 NONE	ZDEPT	No Department	Linear	303.16	Dollars
	Factors	303.161 Dollars						
	ESC	ESCALATION	0000 NONE	ZDEPT	No Department	Linear	200.01	Oollars

Factors 200.01 Dollars

Activity ID:	1DF0402M10

Description: FY-02 Personnel Relo & Property Disposition

Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
776-1CPA	Computer/Comm. Equipment Disposition	0.00	P1CPA	HC	#Num!	0	0	0	0	0	0	0
776-1FPA	Office Furniture Disposition	0.00	P1FPA	HC	#Num!	0	0	0	0	0	0	0
776-PersonelRelo	Personnel Relocation	7.00	each	HC	0	0	0	3.026	0	3.026	0	3.026
SYS	Contingency And Escalation	1.00	ea	EE	0	0	0	0	451	451	0	451
	Total for Activity 1DF0402M10:							3.026	451	3.478	0	3.478

Line Item 776-1CPA - Computer/Comm. Equipment Disposition

Resource unit values are from Disposal Cost Model.

Line Item quantity for FY-02 is planned to be insignificant. This line item is being included in the work plan for future modification if necessary.

Resources

BOE

es		Cost Element	Skill			Department	Curve	Ouantity Units
Į	750	STRAIGHT TIME BASE	E120	SAFETY ENGINEERS	C100S	Closure Site Services	Linear	0.20 Hours
	Factors	0.2 Hazard Assessment						
Į	750	STRAIGHT TIME BASE	L050	MISSION SUP SPEC I (CBLFAB.DSP.	C270S	Property Management	Linear	0.20 Hours
	Factors	0.2 Readiness/Removal						
	750	STRAIGHT TIME BASE	L070	MISSION SUP SPEC III	C270S	Property Management	Linear	0.10 Hours
	Factors	0.1 Material Handling						

WBS No: 1DAB04 Baseline Devl Proiect **Rocky Flats Closure Project** 1DF0402M10 1DAB Activity ID: WBS Filter **Baseline Cost and Basis of Estimate** Activity Filter Starts In FY 750 STRAIGHT TIME BASE M020 MANAGERS (GRADE 69 - 72) C270S Property Management 0.10 Hours Linear 0.1 Administrative P170 OTHER ADMINISTRATIVE & PROFE | C242S | Transportation 0.20 Hours 750 STRAIGHT TIME BASE Linear 0.2 Transportation 750 STRAIGHT TIME BASE P170 OTHER ADMINISTRATIVE & PROFE | C270S | Property Management Linear 0.25 Hours Factors 0.25 Administrative Line Item 776-1FPA - Office Furniture Disposition Resource unit values are from Disposal Cost Model. BOE Line Item quantity for FY-02 is planned to be insignificant. This line item is being included in the work plan for future modification if necessary. Resources Cost Element 0.30 Hours 750 STRAIGHT TIME BASE L050 MISSION SUP SPEC I (CBLFAB.DSP. | C270S | Property Management Linear Readiness/Removal 0.3 750 STRAIGHT TIME BASE L070 MISSION SUP SPEC III C270S Property Management Linear 0.10 Hours Factors 0.1 Material Handling 750 STRAIGHT TIME BASE M020 MANAGERS (GRADE 69 - 72) C270S Property Management 0.10 Hours Linear 0.1 Administrative Factors 750 STRAIGHT TIME BASE P170 OTHER ADMINISTRATIVE & PROFE C242S Transportation 0.20 Hours Linear 0.2 Transportation Factors P170 OTHER ADMINISTRATIVE & PROFE 0.25 Hours 750 STRAIGHT TIME BASE C270S Property Management Linear Factors 0.25 Administrative Line Item 776-PersonelRelo - Personnel Relocation Historical Data Source - Personnel Relocation Planning Template (3/12/99) and associated guidance on average cost for relocation. BOE Item Desc - Relocate Personnel Supporting B776/777 Closure Breakdown of Historical Data: Item - Personnel Relocation Units - ea Unit Cost - 432.35 Unit Cost Adjustment factor - None Revised Unit Cost - 432.35 Basis for adjustment -Unite Cost Flement Resources A5H SUBCONTRACTED SRVS C100S Closure Site Services 432.35 Dollars 0000 NONE Linear 432.35 Dollars per employee relocation Line Item SYS - Contingency And Escalation BOE Resources Cost Element Skill Department Curve **Ouantity** Units CON CONTINGENCY 0000 NONE ZDEPT No Department 309 75 Dollars Linear Factors 309.748 Dollars ESC ESCALATION ZDEPT No Department 141.43 Dollars 0000 NONE Linear Factors 141.430 Dollars

Activity ID: 1DF0402MG0 Description: FY-02 B776 Operations Management Cost Risk 2 Schedule Risk 3

ACTIVITY ID. ID	twity ib. 151 0402 mice. 11-02 bir to Operations Management.													
Line Item	Description	Quantity	Units BO	DE Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost			
			$T_{\mathcal{V}}$	pe Hours/Unit	Total	Total	Cost	& Escalation	Cost					
OM04	Configuration Control Authority (CCA)	1.00	ea H	C 12.960	12.960	347.782	0	0	347.782	122.767	470.549			
OM07	Environmental Technical Support	1.00	ea H	C 0	0	0	454.400	0	454.400	0	454.400			
OM08	Utility Management	1.00	ea H	C 0	0	0	153.000	0	153.000	0	153.000			
OM09	SOE's	1.00	ea H	C 20.148	20.148	449.298	0	0	449.298	158.602	607.900			
OM10	Shift & Operations Orders	1.00	ea H	C 0	0	0	61.560	0	61.560	0	61.560			
OM12	Decontamination	1.00	ea l	1.136	1.136	30.807	0	0	30.807	10.875	41.683			
OM14	Management Assessment Program	1.00 6	ea l	1 0	0	0	124.800	0	124.800	0	124.800			
OM15	Custodial	1.00	ea H	C 5,400	5,400	91,152	0	0	91,152	32,177	123,329			
OM16	Laundry	1.00	ea H	C 2,658	2,658	63,408	1,062,000	0	1,125,408	22,383	1,147,791			
OM17	Training	1.00	ea H	C 17,480	17,480	535,252	304,000	0	839,252	188,944	1,028,196			

1DAB04 Baseline Devl Project Rocky Flats Closure Project 1DF0402MG0 WBS Filter 1DAB **Baseline Cost and Basis of Estimate**

			Daseille	COSt and	u Dasis di E	Sumate	Activi	tv Filter *		Star	rts In FY *	
OM18	Price Anderson Coordination		1.00 each	HC	0	0	0	128.440	0	128,440	0	128,440
SYS	Contingency And Escalation		1.00 ea	EE	0	0	0	0	647.245	647.245	0	647.245
		Total	for Activity 1DF040	02MG0:		59.782	1.517.699	2.288.200	647.245	4.453.144	535.748	4.988.892

Line Item OM04 - Configuration Control Authority (CCA)

BOE

WBS No:

Activity ID:

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Configuration Control Authorities (CCA) are the single point work release for the authorization of activities in B776/777. The CCA ensures that activities are appropriately planned, scheduled, technically reviewed and may be conducted within the applicable authorization basis. The CCA shall be cognizant of safety system status in order to release work to be conducted within the AB. The CCA shall act as the emergency incident commander in the event that an upset condition arises or an emergency response is warranted.

Overtime required to support maintenance and emerging activities to ensure safety and operability of the facility is included in this basis of estimate.

Resource

ces	Cost Element	Skill	Department	Curve	Quantity Units
	750 STRAIGHT TIME BASE	P170 OTHER ADMINISTRATIVE & PROFE	K399S Building 776 Project	Linear	10.800.00 Hours
	Factors 6 CCAs	1800 Hours per vear			
	751 OVERTIME BASE & PRE.	P170 OTHER ADMINISTRATIVE & PROFE	K399S Building 776 Project	Linear	2.160.00 Hours
	Factors 10800 Hours ST	0.2 20% Overtime			

Line Item OM07 - Environmental Technical Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O

Item Desc - Acts as a single point of contact for all environmental compliance issues within designated buildings, reviews and approves Non Routine Waste Origination Logs, supports regulatory area inspections with CDPHE, EPA, DOE, and RFETS, and completes the appropriate pre- and post-status documents, maintains the Environmental Central File System for designated buildings, identifies corrective measures to environmental compliance related deficiencies and prepares environmental compliance action plans, maintains the Waste Stream and Residue Characterization book for the building, initiates the reactive chemical management plan ensuring the proper notification are made and that the treatment complies with the building authorization basis, documents any generator treatment performed in the building, and ensures that the building is supplied with adequate spill response equipment.

Resources

es		Cost Element			Skill			Department		Curve	Ouantity	Units
	A5H SUBCO	NTRACTED SRVS	E050	ENVIRO	NMENTAL ENGINEERS	K399S	Building	776 Project		Linear	288,000.00	Dollars
F	actors 2	Environmental Technologi	ists -	1800	hours per vear		80	Dollars per hour RMRS Corporate	1			
	A5H SUBCO	NTRACTED SRVS	P170	OTHER	ADMINISTRATIVE & PROFE	K399S	Buildina	776 Proiect		Linear	166.400.00	Dollars
F	actors 1	Administrative Support Pe	rsonnel	40	Hours per Week		52	Weeks per year	80	Dollars per he	our RMRS Corp	orate

Line Item OM08 - Utility Management

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Utility management includes the Utilities Manager and the Utilities Foreman, as follows:

The Utilities Manager oversees facility utility operations per DOE and Site Standards. Specific responsibilities include ensuring that utility systems and equipment function safely and properly; that surveillances are performed in a safe and timely manner; that applicable training and qualification standards are met by management, technical, and Stationary Operating Engineers; and that all activities are in concert with the plant, building , and programs objectives.

The Utilities Foreman directly oversees the daily SOE activities and ensures that all required activities are conducted in a safe, timely, and proper manner, and in accordance with management quidance.

Resources

:5			Cost Element			Skill			Department	Curve	Ouanniv	Units	
	A5H	SUBCON	ITRACTED SRVS	P170	OTHER A	DMINISTRATIVE & PROFE	K399S	Buildina	776 Project	Linear	153.000.00	Dollars	
	Factors	85	dollars per hour		1	Utiltiv Specialist Theesfeld		1800	Hours/ea				

Line Item OM09 - SOE's

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - The Stationary Operating Engineers (SOEs) are required to be present around the clock and are on various jump shifts, 365 days per year to

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Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter

ct Baseline Devl Filter 1DAB

Activity Filter * Starts In FY

monitor both the control room and compressor house, and to make shiftly rounds. One SOE is required to cover the control room and one SOE is required to cover the compressor house and make shiftly rounds. Overtime is added to account for shift turnover, training, and absences due to illness, or vacations. SOEs also perform the following surveillances during their shiftly rounds: Photohelics; EGEN; Fan Operatibity; Oxygen Analyzers; and Hepa Filter Differential Pressure.

Resources

es		Cost Element		Skill		Department		Curve	Quantity	Units
	750	STRAIGHT TIME BASE	R070 WA	ASTE TREATMENT OPERATOR A	KD10H	776 Complex Steelworkers		Linear	17.589.21	Hours
	Factors	0.873 In FY-98 approximately 87.3	3% of this 2	2.3 SOEs		24 Hours per day (over 3 shifts)	365	davs per vea	r (continuous co	verage)
	751	OVERTIME BASE & PRE.	R070 WA	ASTE TREATMENT OPERATOR A	KD10H	776 Complex Steelworkers		Linear	2.558.80	Hours
	Factors	0 127 approximately 12 7% of the	coverage 2	2.3 SOEs		24 Hours per day	365	days per yea	r to provide total	

Line Item OM10 - Shift & Operations Orders

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Operations and Shift Orders Administration includes ongoing maintenance of all active building operations and shift orders by an experienced technical writer-administrator. Generally, the administrator updates existing orders in response to the building's day-to-day operating demands and in accordance with standing plant policies and procedures. In some cases, the administrator may develop an original order. In addition, the administrator processes the orders in accordance with plant and DOE standards, maintains an accurate and current working file, and maintains an up-to-date Operations Orders Manual. The administrator works in conjunction with building professional staff and management, subject matter experts, and other technical writers in order to ensure the accuracy, timeliness, and thoroughness of the operations orders.

Resources

s			Cost Element			Skill			Department	Curve	Quantity	Units
	A57	LATA		P160	TECHNI	CAL WRITERS AND EDITOR	K399S	Buildina	776 Proiect	Linear	54.000.00	Dollars
Fc	ictors	60	dollars per hour Chartrand		900	hours						
	A57	LATA		P160	TECHNI	CAL WRITERS AND EDITOR	K399S	Buildina	776 Proiect	Linear	7.560.00	Dollars
F_{ℓ}	ictors	0.07	7% overtime		60	dollars per hour		1800	hours straight time			

Line Item OM12 - Decontamination

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev0.

Item Desc -

Provide as needed decontamination support to support various operations in B776/777.

Resources

es		Cost Element			Skill			Department	Curve	Quantity	Units
Ĺ	750	STRAIGHT TIME BASE	P090	INDUST	TRIAL HYGIENISTS	R100S	RMRS	Salaried	Linear	180.00	Hours
	Factors	1 Industrial Hygienist		9	Hours per day performing Be	e Decon	20	davs per vear performing Be Decon			
Ĺ	750	STRAIGHT TIME BASE	T050	RADIAT	TION CONTROL TECHNOLIGI	KD10H	776 Co	mplex Steelworkers	Linear	180.00	Hours
	Factors	1 RCT		9	hours per day Be Decon		20	davs performing Be decon per vear			
L	750	STRAIGHT TIME BASE	T060	D&D H/	AZ REDUC TECH / RISK RED	KD10H	776 Co	mplex Steelworkers	Linear	360.00	Hours
	Factors	2 Process Specialists		9	hours per day for Be Decon		20	davs			
	751	OVERTIME BASE & PRE.	T060	D&D H/	AZ REDUC TECH / RISK RED	KD10H	776 Co	mplex Steelworkers	Linear	416.00	Hours
	Factors	8 hours per week Pu Decon		52	weeks per year						

Line Item OM14 - Management Assessment Program

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0

Item Desc - Coordination of Management Assessment Program for the 776/777 buildings. Reviews and tracks items identified through the performance of MAP's. Inputs actions into the PATS system and tracks to completion.

Resources

es		Cost Element	Skill		Department	Curve	Ouantity	Units
	A53	E-2	P170 OTHER ADMINISTRATIVE & PROFE	K399S	Building 776 Project	Linear	124.800.00	Dollars

Factors 52 weeks per year Scott 60 dollars per hour 40 hours per week coordinate/administer

Line Item OM15 - Custodial

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

WBS No: 1DAB04 Activity ID: 1DF0402MG0

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect
WBS Filter

Baseline Devl 1DAB

Starts In FY

Item Desc - Custodial Support covers basic cleaning support including cleaning of locker rooms and restrooms, common areas, office areas, conference rooms. Tasks include floor maintenance (vacuuming, sweeping, mopping, and polishing), bathroom cleaning and stocking of supplies and materials, housekeeping, disposal of rubbish, dusting office furniture, and light outside cleaning and snow management.

Resources

s			Cost Element			Skill		Department	Curve	Quantity	Units
	750	STRAIG	HT TIME BASE	L030	UTILITY V	VORKER	KD10H	776 Complex Steelworkers	Linear	5.400.00	Hours
	Factors	3	Utility Workers		1800	Hours per vear					

Line Item OM16 - Laundry

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Laundry stocking includes sorting and distributing anti-c clothing within Buildings 776/777 and the B778 change room.

This pays for modesty clothing and anti-c clothing.

Resources

es		Cost Element		Sk	ill		Department		Curve	<i>Ouantity</i>	Units
	750	STRAIGHT TIME BASE	L090	GENERAL LAE	BORER	C235S	Laundry Services		Linear	786.00	Hours
	Factors	524 hours		1.5 50%	% increase in needs over	FY-99					
	750	STRAIGHT TIME BASE	T060	D&D HAZ RED	OUC TECH / RISK RED	KD10H	776 Complex Steelworkers		Linear	624.00	Hours
	Factors	1 Process Specialist		8 Hou	urs Straight Time per wee	k	52 weeks per vear	1.5	50% increas	se in needs over l	FY-99
	751	OVERTIME BASE & PRE.	T060	D&D HAZ RED	OUC TECH / RISK RED	KD10H	776 Complex Steelworkers		Linear	1.248.00	Hours
	Factors	2 Process Specialists		8 Hou	urs per week		52 weeks per vear	1.5	50% increas	se in needs over l	FY-99
	A5F	CSS FIXED PRICE	0000	NONE		K260S	Site Operations		Linear	1.062.000.00	Dollars
	Factors	59000 Dollars/Month 2/00-4/00		12 Mor	nths		1.5 usage rate				

Tueston Cocco Donard/Month

Line Item OM17 - Training

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Training Qualification for personnel attending courses required for job performance as defined in the Qualification Performance & Training records for each building specific department and skill code.

Education Reimbursement covers formal approved off-site educational programs and/or attendance at off-site training seminars that directly benefit the employees' performance.

The Training Coordinator ensures compliance with plant training standards, advises building management regarding training requirements, and provides guidance to the Training Scheduler for implementation of plantwide training standards.

The Training Scheduler provides logistics information regarding training sessions and schedules attendance of building personnel at required training courses.

Rad Ops Training funds support time spent in class to maintain sufficient qualifications.

Resources

es	Cost Element		Skill		Department	Curve	Quantity Units
750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	774.00 Hours
Facto	rs 9 Personnel		86 Hours				
750	STRAIGHT TIME BASE	R070	WASTE TREATMENT OPERATOR A	KD10H	776 Complex Steelworkers	Linear	2.322.00 Hours
Facto	rs 27 Personnel		86 Hours	ı			
751	OVERTIME BASE & PRE.	E130	OTHER ENGINEERS	R100S	RMRS Salaried	Linear	774.00 Hours
Facto	rs 9 Personnel		86 Hours				
751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	3.816.00 Hours
Facto	rs 18 Hours/quarterly module		53 RCTs	1	4 quarters		
751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	1.376.00 Hours
Facto	rs 16 Personnel	1	86 Hours	ı			
751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	8.256.00 Hours
Facto	rs 96 D&D Workers	1	86 hours each per year general				
751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	162.00 Hours
Facto	rs 9 Personnel		18 Hours (RCRA)				

WBS No: 1DAR04 Baseline Devl Proiect Rocky Flats Closure Project 1DF0402MG0 1DAB Activity ID: WBS Filter **Baseline Cost and Basis of Estimate** <u>Activi</u>ty Filter Starts In FY A5H SUBCONTRACTED SRVS P150 TRAINERS K399S Building 776 Project 144 000 00 Dollars Linear Subcontracted Trainer Randozzo 1800 hours dollars per hour A5H SUBCONTRACTED SRVS P150 TRAINERS R100S RMRS Salaried Linear 90.000.00 Dollars RMRS Trainer Mendoza 1800 dollars per hour hours A5M TRAVEL/TRAIN/RELOCAT 0000 NONE Building 776 Project Linear 70.000.00 Dollars 3500 \$/s per Education Reimbursement Factors Personnel Line Item OM18 - Price Anderson Coordination Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item BOE level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O Item Desc - This activity includes support for authorization, review, and processing of Price Anderson Amendment Act (PAAA) issues. These items include reviewing Occurrence Reports, Radiological Deficiency Reports (RDR), Facility assessments, audits and surveillance reports, and adverse trends and indicators. The PAAA Coordinator investigates and documents issues/events or conditions at the facility level to the degree deemed necessary by the PA Compliance Manager and/or the RMRS General Council. This may include such activities as attending fact-finding meetings, participating in root cause investigations, interviewing facility personnel, reviewing records, participating in the development of corrective actions and generating closure documentation. In addition, this line contains the work scope for the Commitments Tracking Coordinator who is responsible for tracking all external and internal commitments for B776/777 personnel. This includes Corrective Action Requests (CAR), Deficiency Reports (DR), Environmental Commitments, JCUSC Safety Concerns, Compliance Schedule Agreements (CSA), Short-Term Compliance Statements (STCS), and all DOE commitments. Responsible for ensuring status revision requests, interim certificates of completion, and final certificates of completion are submitted to site Commitments Tracking personnel as required. Cost Element Resources Department A5H SUBCONTRACTED SRVS P170 OTHER ADMINISTRATIVE & PROFE | K399S | Building 776 Project Linear 67.600.00 Dollars Hours per week coordinating Price weeks per vear dollars per hour A5H SUBCONTRACTED SRVS P170 OTHER ADMINISTRATIVE & PROFE K399S Building 776 Project Linear 60 840 00 Dollars 18 hours per week for commitments 52 weeks per vear 65 dollars per hour Factors Line Item SYS - Contingency And Escalation BOE Resources Cost Element Curve Units CON CONTINGENCY 0000 NONE ZDEPT No Department Linear 444.354.00 Dollars Factors 444354 Dollars ESC ESCALATION ZDEPT No Department 0000 NONE Linear 202.891.40 Dollars 202891 Dollars Activity ID: 1DF0403M10 Description: FY-03 Personnel Relo & Property Disposition Cost Risk 2 Schedule Risk BOE Labor Cost Materials/ Sub Contingency Total Prime Line Item Description **Ouantity** Units Labor Labor Hours Burden Cost Total Cost Type Hours/Unit **Total Total** Cost & Escalation Cost HC 776-1CPA Computer/Comm. Equipment Disposition 450.00 P1CPA 473 10.394 10.394 3.596 13.990 776-1FPA Office Furniture Disposition 2.050.00 P1FPA HC 2.358 51.118 Λ 51.118 17.687 68.805 776-PR1 FY-03 Standard Personnel Relocation 13.00 each HC 0 0 5.621 0 5.621 5.621 HC 776-PR2 FY-03 Year End Evac of Remaining Personnel 65.00 each 0 0 28.103 0 28.103 0 28.103 SYS Contingency And Escalation 1.00 ea EE 0 0 0 32.223 32.223 0 32.223 Λ Total for Activity 1DF0403M10: 2.830 61.512 33.723 32 223 127.458 21.283 148.741 Line Item 776-1CPA - Computer/Comm. Equipment Disposition Resource unit values are from Disposal Cost Model. BOE Line Item quantity for FY-00 is planned to be insignificant. This line item is being included in the work plan for future modification if necessary.

C270S Property Management

C270S Property Management

L050 MISSION SUP SPEC I (CBLFAB.DSP.

P170 OTHER ADMINISTRATIVE & PROFE | C270S | Property Management

T050 RADIATION CONTROL TECHNOLIGI | KD10H | 776 Complex Steelworkers

L070 MISSION SUP SPEC III

Resources

Cost Element

Readiness/Removal

Material Handling

hour for swipes and report

Administrative

750 STRAIGHT TIME BASE

750 STRAIGHT TIME BASE

0.1

0.4

0.35

Factors

Factors

750

Factors

STRAIGHT TIME BASE

STRAIGHT TIME BASE

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Linear

Linear

Linear

Linear

Units

0.20 Hours

0.10 Hours

0.35 Hours

0.40 Hours

WBS No: 1DAB04 *Activity ID:* 1DF0403M10

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect
WBS Filter
Activity Filter

Baseline Devl er 1DAB

Starts In FY *

Line Item 776-1FPA - Office Furniture Disposition

BOE

Resource unit values are from Disposal Cost Model.

Line Item quantity for FY-00 is planned to be insignificant. This line item is being included in the work plan for future modification if necessary.

Resources

s	Cost Element	Skill	Department	Curve	Quantity Units
	750 STRAIGHT TIME BASE	L050 MISSION SUP SPEC I (CBLFAB.DSP.	C270S Property Management	Linear	0.30 Hours
	Factors 0.3 Readiness/Removal				
	750 STRAIGHT TIME BASE	L070 MISSION SUP SPEC III	C270S Property Management	Linear	0.10 Hours
ı	Factors 0.1 Material Handling				
	750 STRAIGHT TIME BASE	P170 OTHER ADMINISTRATIVE & PROFE	C270S Property Management	Linear	0.35 Hours
	Factors 0.35 Administrative				
	750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	0.40 Hours

Factors 0.4 hour swipes and report prep

Line Item 776-PR1 - FY-03 Standard Personnel Relocation

BOE

Historical Data Source - Personnel Relocation Planning Template (3/12/99) and associated guidance on average cost for relocation.

Item Desc - Relocate Personnel Supporting B776/777 Closure

Breakdown of Historical Data: Item - Personnel Relocation

Units - ea

Unit Cost - 432.35

Unit Cost Adjustment factor - None

Revised Unit Cost - 432.35 Basis for adjustment -

Resources

es		Cost Element	Skill	Department	Curve	Ouantity	Units
	A5H	SUBCONTRACTED SRVS	0000 NONE	C100S Closure Site Services	Linear	432.35 D	Oollars

Factors 432.35 Dollars per employee relocation

Line Item 776-PR2 - FY-03 Year End Evac of Remaining Personnel

BOE

Historical Data Source - Personnel Relocation Planning Template (3/12/99) and associated guidance on average cost for relocation.

Item Desc - Relocate Personnel Supporting B776/777 Closure

Description: EV-03 B776 Operations Management

Breakdown of Historical Data: Item - Personnel Relocation

Units - ea

Unit Cost - 432.35

Unit Cost Adjustment factor - None

Revised Unit Cost - 432.35

Basis for adjustment -

Resources

es	Cost Element		Skill		Department	Curve	Quantity	Units
	A5H SUBCONTRACTED SRVS	0000 N	NONE	C100S	Closure Site Services	Max Backload	432.35	Dollars

Factors 432.35 Dollars per employee relocation

Line Item SYS - Contingency And Escalation

BOE

Resource

ces		Cost Element		Skill		Department	Curve	Ouantity	Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	23.288.19	Dollars
	Factors	23288.2 Dollars							
	ESC	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	8.935.21	Dollars

Factors 8935.21 Dollars

ACTIVITY ID. TO	Description. 11-03 B110 Operations War	lagement						Cost Kisk	2 Schedule N	isk 3		
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
OM04	Configuration Control Authority (CCA)	1.00	ea	HC	12.960	12.960	347.782	0	0	347.782	120.332	468.114
OM07				HC	0	0	0	454.400	0	454.400	0	454.400
OM08	Utility Management	1.00	ea	HC	0	0	0	153.000	0	153.000	0	153.000
OM09	SOE's	1.00	ea	HC	20.148	20.148	449.298	0	0	449.298	155.457	604.755
OM10	M10 Shift & Operations Orders		ea	HC	0	0	0	61.560	0	61.560	0	61.560
OM12	DM12 Decontamination			Н	1.136	1.136	30.807	0	0	30.807	10.659	41.467

Cost Pick

2 Schodula Pick

WBS No: 1DAB04 Activity ID: 1DF0403MG0

Rocky Flats Closure Project

Proiect WBS Filter

Baseline Devl

			Daseille Cost a	iliu basis oi	Latimate	Act	ivity Filter *		Ste	arts In FY *	
OM14	Management Assessment Program	1.00	ea H	0	0	0	124.800	0	124.800	0	124.800
OM15	Custodial	1.00	ea HC	5.400	5.400	91.152	0	0	91.152	31.539	122.691
OM16	Laundry	1.00	ea HC	2.658	2.658	63.408	720.000	0	783.408	21.939	805.347
OM17	Training	1.00	ea HC	19.806	19.806	618.241	304.000	0	922.241	213.911	1.136.152
OM18	Price Anderson Coordination	1.00	each HC	0	0	0	128.440	0	128.440	0	128.440
SYS	Contingency And Escalation	1.00	ea EE	0	0	0	0	1.134.068	1.134.068	0	1.134.068
		Total for Activ	ity 1DF0403MG0:		62.108	1.600.687	1.946.200	1.134.068	4.680.955	553.838	5.234.793

Line Item OM04 - Configuration Control Authority (CCA)

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0

Item Desc - Configuration Control Authorities (CCA) are the single point work release for the authorization of activities in B776/777. The CCA ensures that activities are appropriately planned, scheduled, technically reviewed and may be conducted within the applicable authorization basis. The CCA shall be cognizant of safety system status in order to release work to be conducted within the AB. The CCA shall act as the emergency incident commander in the event that an upset condition arises or an emergency response is warranted.

Overtime required to support maintenance and emerging activities to ensure safety and operability of the facility is included in this basis of estimate.

Resources

es		Cost Element		Skill		Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	K399S	Building 776 Project	Linear	10.800.00	Hours
	Factors	6 CCAs		1800 Hours per vear					
	751	OVERTIME BASE & PRE.	P170	OTHER ADMINISTRATIVE & PROFE	K399S	Building 776 Project	Linear	2.160.00	Hours

Factors 10800 Hours ST 0.2 20% Overtime

Line Item OM07 - Environmental Technical Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Acts as a single point of contact for all environmental compliance issues within designated buildings, reviews and approves Non Routine Waste Origination Logs, supports regulatory area inspections with CDPHE, EPA, DOE, and RFETS, and completes the appropriate pre- and post-status documents, maintains the Environmental Central File System for designated buildings, identifies corrective measures to environmental compliance related deficiencies and prepares environmental compliance action plans, maintains the Waste Stream and Residue Characterization book for the building, initiates the reactive chemical management plan ensuring the proper notification are made and that the treatment complies with the building authorization basis, documents any generator treatment performed in the building, and ensures that the building is supplied with adequate spill response equipment.

Resources

es		Co	st Element				Skill			Department		Curve	<i>Ouantity</i>	Units
	A5H	SUBCONTE	RACTED SRVS		E050	ENVIRON	IMENTAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	288.000.00	Dollars
	Factors	2	Environmental T	echnologists	; -	1800	hours per vear		80	Dollars per hour RMRS Corporate				
	A5H	SUBCONTE	RACTED SRVS		P170	OTHER A	DMINISTRATIVE & PROFE	K399S	Buildina	776 Proiect		Linear	166,400.00	Dollars
	Factors	1	Administrative S	Support Perso	onnel	40	Hours per Week		52	Weeks per year	80	Dollars per h	our RMRS Corp	orate

Line Item OM08 - Utility Management

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Utility management includes the Utilities Manager and the Utilities Foreman, as follows:

The Utilities Manager oversees facility utility operations per DOE and Site Standards. Specific responsibilities include ensuring that utility systems and equipment function safely and properly; that surveillances are performed in a safe and timely manner; that applicable training and qualification standards are met by management, technical, and Stationary Operating Engineers; and that all activities are in concert with the plant, building, and programs objectives.

The Utilities Foreman directly oversees the daily SOE activities and ensures that all required activities are conducted in a safe, timely, and proper manner, and in accordance with management quidance.

Also included in this element are resources to cover the LO/TO requirements.

Resources		(Cost Element			Skill			Department	Curve	Ouantity	Units
	A5H	SUBCON	TRACTED SRVS	P170	OTHER A	ADMINISTRATIVE & PROFE	K399S	Buildina	776 Project	Linear	153.000.00	Dollars
	Factors	85	dollars per hour		1	Utiltiv Specialist Theesfeld		1800	Hours/ea			

WBS No: 1DAB04 Rocky Flats Closure Project 1DF0403MG0 Activity ID: **Baseline Cost and Basis of Estimate**

Baseline Devl Proiect WBS Filter Activity Filter

1DAB

Starts In FY

Line Item OM09 - SOE's

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev O.

Item Desc - The Stationary Operating Engineers (SOEs) are required to be present around the clock and are on various jump shifts, 365 days per year to monitor both the control room and compressor house, and to make shiftly rounds. One SOE is required to cover the control room and one SOE is required to cover the compressor house and make shiftly rounds. Overtime is added to account for shift turnover, training, and absences due to illness, or vacations. SOEs also perform the following surveillances during their shiftly rounds: Photohelics; EGEN; Fan Operatibity; Oxygen Analyzers; and Hepa Filter Differential Pressure.

Resources

es		Cost Element	Skill		Department		Curve	Quantity	Units
	750	STRAIGHT TIME BASE	R070 WASTE TREATMENT OPERATOR A	KD10H	776 Complex Steelworkers	L	inear	17.589.21	Hours
	Factors	0.873 In FY-98 approximately 87.3	3% of this 2.3 SOEs		24 Hours per day (over 3 shifts)	365	davs per vea	r (continuous co	verage)
	751	OVERTIME BASE & PRE.	R070 WASTE TREATMENT OPERATOR A	KD10H	776 Complex Steelworkers	L	inear	2.558.80	Hours
	Factors	0.127 approximately 12.7% of the	coverage 2.3 SOEs		24 Hours per day	365	days per yea	r to provide tota	ıl

Line Item OM10 - Shift & Operations Orders

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Operations and Shift Orders Administration includes ongoing maintenance of all active building operations and shift orders by an experienced technical writer-administrator. Generally, the administrator updates existing orders in response to the building's day-to-day operating demands and in accordance with standing plant policies and procedures. In some cases, the administrator may develop an original order. In addition, the administrator processes the orders in accordance with plant and DOE standards, maintains an accurate and current working file, and maintains an up-to-date Operations Orders Manual. The administrator works in conjunction with building professional staff and management, subject matter experts, and other technical writers in order to ensure the accuracy, timeliness, and thoroughness of the operations orders.

Resources

es			Cost Element			Skill			Department	Curve	Ouantity	Units
	A57	LATA		P160	TECHNIC	CAL WRITERS AND EDITOR	K399S	Buildina	776 Proiect	Linear	7.560.00	Dollars
	Factors	0.07	7% overtime		60	dollars per hour		1800	hours straight time			
	A57	LATA		P160	TECHNIC	CAL WRITERS AND EDITOR	K399S	Buildina	776 Proiect	Linear	54.000.00	Dollars
	Factors	60	dollars per hour Chartrand		900	hours						

Line Item OM12 - Decontamination

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev0.

Provide as needed decontamination support to support various operations in B776/777.

Resources

es		Cost Element		Skill		Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	P090	INDUSTRIAL HYGIENISTS	R100S	RMRS Salaried	Linear	180.00	Hours
بے	Factors	1 Industrial Hygienist		9 Hours per day performing B	e Decon	20 davs per vear performing Be Decor)		
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	180.00	Hours
ہے	Factors	1 RCT		9 hours per day Be Decon		20 davs performing Be decon per vear			
L	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	360.00	Hours
بے	Factors	2 Process Specialists		9 hours per day for Be Decon		20 davs			
L	751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	416.00	Hours

hours per week Pu Decon Factors 8 weeks per year

Line Item OM14 - Management Assessment Program

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Coordination of Management Assessment Program for the 776/777 buildings. Reviews and tracks items identified through the performance of MAP's. Inputs actions into the PATS system and tracks to completion.

Resources	Cost Element	Skill	Department	Curve	Ouantity	Units	

WBS No: 1DAB04 Activity ID: 1DF0403MG0

A53 F-2

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter Baseline Devl

WBS Filter 1DAB
Activity Filter *

Activity Filter * Starts In FY *
Linear 124.800.00 Dollars

Factors 52 weeks per year Scott 60 dollars per hour 40 hours per week coordinate/administer

Line Item OM15 - Custodial

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Custodial Support covers basic cleaning support including cleaning of locker rooms and restrooms, common areas, office areas, conference rooms. Tasks include floor maintenance (vacuuming, sweeping, mopping, and polishing), bathroom cleaning and stocking of supplies and materials, housekeeping, disposal of rubbish, dusting office furniture, and light outside cleaning and snow management.

Resources

ces		C	Cost Element			Skill		Department	Curve	Ouantity	Units
	750	STRAIGH	T TIME BASE	L030	UTILITY	WORKER	KD10H	776 Complex Steelworkers	Linear	5.400.00	
	Factors	3	Utility Workers		1800	Hours per vear					

Line Item OM16 - Laundry

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Laundry stocking includes sorting and distributing anti-c clothing within Buildings 776/777 and the B778 change room.

P170 OTHER ADMINISTRATIVE & PROFE | K399S | Building 776 Project

This pays for modesty clothing and anti-c clothing.

Resources

3	Cost Element		Skill			Department		Curve	Quantity	Units
750	STRAIGHT TIME BASE	L090	GENERAL LABOR	ER	C235S	Laundry Services		Linear	786.00	Hours
Factors	524 hours			crease in needs over	FY-99					
750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC	TECH / RISK RED	KD10H	776 Complex Steelworkers		Linear	624.00	Hours
Factors	1 Process Specialist		8 Hours S	Straight Time per wee	ek	52 weeks per vear	1.5	50% increas	e in needs over	FY-99
751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC	TECH / RISK RED	KD10H	776 Complex Steelworkers		Linear	1.248.00	Hours
Factors	2 Process Specialists		8 Hours r	oer week		52 weeks per vear	1.5	50% increas	e in needs over	FY-99
A5F	CSS FIXED PRICE	0000	NONE		K260S	Site Operations		Linear	720.000.00	Dollars
Factors	60000 Dollars/Month		12 Months							

Line Item OM17 - Training

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Training Qualification for personnel attending courses required for job performance as defined in the Qualification Performance & Training records for each building specific department and skill code.

Education Reimbursement covers formal approved off-site educational programs and/or attendance at off-site training seminars that directly benefit the employees' performance.

The Training Coordinator ensures compliance with plant training standards, advises building management regarding training requirements, and provides guidance to the Training Scheduler for implementation of plantwide training standards.

The Training Scheduler provides logistics information regarding training sessions and schedules attendance of building personnel at required training courses.

Rad Ops Training funds support time spent in class to maintain sufficient qualifications.

Resources

es	Cost Element		. Skill		Department	Curve	Ouantity Units
750	STRAIGHT TIME BASE	C020	ELECTRICIANS	KD10H	776 Complex Steelworkers	Linear	774.00 Hours
Factor	y 9 Personnel		86 Hours				
750	STRAIGHT TIME BASE	R070	WASTE TREATMENT OPERATOR A	KD10H	776 Complex Steelworkers	Linear	1.806.00 Hours
Factor	y 21 Personnel		86 Hours	,			<u> </u>
751	OVERTIME BASE & PRE.	E130	OTHER ENGINEERS	R100S	RMRS Salaried	Linear	688.00 Hours
Factor	s 8 Personnel		86 Hours	,			
751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	4.680.00 Hours
Factor	s 18 Hours/quarterly module		65 RCTs		4 guarters		

WBS No: 1DAB04 Activity ID: 1DF0403MG0

Rocky Flats Closure Project Resoling Cost and Resis of Estimate

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Baseline Devl

			Daseille Cost at	iu Dasis	or Estimate	Activity Filter *		Starts In FY *
751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers		Linear	10.320.00 Hours
Factors	120 D&D Workers		. 86 hours each per vear genera	l training				
751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers		Linear	1.376.00 Hours
Factors	16 Personnel		86 Hours					·
751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers		Linear	162.00 Hours
Factors	9 Personnel		18 Hours (RCRA)					·
A5H	SUBCONTRACTED SRVS	P150	TRAINERS	K399S	Building 776 Project		Linear	144.000.00 Dollars
Factors	1 Subcontracted Trainer Ran	dozzo	1800 hours		80 dollars per hour			·
A5H	SUBCONTRACTED SRVS	P150	TRAINERS	R100S	RMRS Salaried		Linear	90.000.00 Dollars
Factors	1 RMRS Trainer Mendoza		1800 hours		50 dollars per hour			·
A5M	TRAVEL/TRAIN/RELOCAT	0000	NONE	K399S	Buildina 776 Proiect		Linear	70.000.00 Dollars
	0500 0/ 51 / 5 /		00 D					

Factors 3500 \$/s per Education Reimbursement Personnel

Line Item OM18 - Price Anderson Coordination

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - This activity includes support for authorization, review, and processing of Price Anderson Amendment Act (PAAA) issues. These items include reviewing Occurrence Reports, Radiological Deficiency Reports (RDR), Facility assessments, audits and surveillance reports, and adverse trends and indicators. The PAAA Coordinator investigates and documents issues/events or conditions at the facility level to the degree deemed necessary by the PA Compliance Manager and/or the RMRS General Council. This may include such activities as attending fact-finding meetings, participating in root cause investigations, interviewing facility personnel, reviewing records, participating in the development of corrective actions and generating closure documentation. In addition, this line contains the work scope for the Commitments Tracking Coordinator who is responsible for tracking all external and internal commitments for B776/777 personnel. This includes Corrective Action Requests (CAR), Deficiency Reports (DR), Environmental Commitments, JCUSC Safety Concerns, Compliance Schedule Agreements (CSA), Short-Term Compliance Statements (STCS), and all DOE commitments. Responsible for ensuring status revision requests, interim certificates of completion, and final certificates of completion are submitted to site Commitments Tracking personnel as required.

Resources

es		Cost Element			Skill			Department	Curve	Quantity	Units
L	A5H	SUBCONTRACTED SRVS	P170	OTHER	R ADMINISTRATIVE & PROFE	K399S	Buildina	776 Proiect	Linear	67.600.00	Dollars
-	Factors	20 Hours per week coordinating	a Price	52	weeks per vear		65	dollars per hour	 		
L	A5H	SUBCONTRACTED SRVS	P170	OTHER	R ADMINISTRATIVE & PROFE	K399S	Buildina	776 Proiect	Linear	60.840.00	Dollars
	Factors	18 hours per week for commit	ments	52	weeks per vear		65	dollars per hour			

Line Item SYS - Contingency And Escalation

BOE

R	es	۸ı	ırı	۵-	c
n	63	υι	ai v		3

ces		Cost Element		Skill		Department	Curve	Quantity	Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	819.602.70	Dollars
	Factors	819603 Dollars							
	ESC	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	314.465.20	Dollars
	Factors	314465 Dollars							

Activity ID: 1DXXX04400 Description: End B776 Facility Landlord Cost Risk 2 Schedule Risk

Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
OM04	Configuration Control Authority (CCA)	0.22	ea	HC	12,960	2,801	75,175	0	0	75,175	26,161	101,337
OM07	Environmental Technical Support	0.22	ea	HC	0	0	0	98,222	0	98,222	0	98,222
OM08	Utility Management	0.22	ea	HC	0	0	0	33,072	0	33,072	0	33,072
OM09	SOE's	0.22	ea	HC	28,225	6,101	140,616	0	0	140,616	48,934	189,551
OM10	Shift & Operations Orders	0.22	ea	HC	0	0	0	24,979	0	24,979	0	24,979
OM12	Decontamination	0.22	ea	Н	870	188	4,779	0	0	4,779	1,663	6,442
OM14	Management Assessment Program	0.22	ea	Н	0	0	0	26,976	0	26,976	0	26,976
OM15	Custodial	0.22	ea	HC	5,400	1,167	19,703	0	0	19,703	6,857	26,560
OM16	Laundry	0.66	ea	HC	2,658	1,741	41,533	471,616	0	513,149	14,454	527,603
OM17	Training	0.22	ea	HC	6.136	1.326	30.672	7.566	0	38.237	10.674	48.911
OM18	Price Anderson Coordination	0.66	each	HC	0	0	0	90.603	0	90.603	0	90.603
SYS	Contingency And Escalation	1.00	ea	EE	0	0	0	0	1.558.088	1.558.088	0	1.558.088
T02	Radiological Engineering	0.66	ea	HC	0	0	0	200.437	0	200.437	0	200.437

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Activity ID: 1DXXX04400 Baseline Cost and Basis of Estimate

		Daseille	COSt all	u basis oi E	Sumate	Activi	tv Filter *		Star	rts In FY *	
T03	Stepoff Pad	0.66 ea	Н	2.574	1.686	36.895	0	0	36.895	12.839	49.734
T04	Contamination Control	0.66 ea	Н	515	337	7.379	0	0	7.379	2.568	9.947
T05	Radiological Work Permit	0.22 ea	Н	2.317	501	10.958	0	0	10.958	3.813	14.771
T06	ALARA Committee	0.66 ea	HC	60	39	806	0	0	806	281	1.087
T07	Analytical Lab - DAC	6.288.21 each	Н	0	0	0	138.341	0	138.341	0	138.341
T08	Nuclear Safety Support	0.66 each	HC	0	0	0	200.437	0	200.437	0	200.437
T10	Electrical Engineering	0.66 ea	Н	0	0	0	172.755	0	172.755	0	172.755
T11	Mechanical Engineering	0.66 ea	HC	0	0	0	182.751	0	182.751	0	182.751
T13	Fire Protection Engineering	0.66 ea	HC	0	0	0	100.218	0	100.218	0	100.218
T14	Emergency Preparedness	0.66 ea	HC	144	94	1.939	56.004	0	57.943	675	58.618
T15	Procedures	0.22 ea	HC	0	0	0	25.290	0	25.290	0	25.290
T16	Criticality Engineering	0.22 ea	HC	0	0	0	82.680	0	82.680	0	82.680
T17	Plan of the Week/DOD	0.66 ea	HC	936	613	16.082	0	0	16.082	5.596	21.678
T19	Proiect Safety Officer	0.66 each	HC	0	0	0	100.218	0	100.218	0	100.218
T20	Plant Review Committee	0.22 each	HC	104	22	590	3.822	0	4.411	205	4.617
T21	Health Physics And Instrumentation	0.22 ea	Н	0	0	0	53.809	0	53.809	0	53.809
T22	Radiological Management	0.66 each	HC	5.140	3.367	95.398	16.376	0	111.774	33.199	144.972
T23	Criticality Safety Officer	0.66 ea	HC	0	0	0	100.218	0	100.218	0	100.218
T24	Occurrence Reporting	0.66 each	HC	0	0	0	50.109	0	50.109	0	50.109
T27	Chemical Control Officer	0.22 ea	HC	0	0	0	33.072	0	33.072	0	33.072
		Total for Activity 1DXXXI	04400:		19.985	482.526	2.269.571	1.558.088	4.310.185	167.919	4.478.104

Line Item OM04 - Configuration Control Authority (CCA)

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Configuration Control Authorities (CCA) are the single point work release for the authorization of activities in B776/777. The CCA ensures that activities are appropriately planned, scheduled, technically reviewed and may be conducted within the applicable authorization basis. The CCA shall be cognizant of safety system status in order to release work to be conducted within the AB. The CCA shall act as the emergency incident commander in the event that an upset condition arises or an emergency response is warranted.

Overtime required to support maintenance and emerging activities to ensure safety and operability of the facility is included in this basis of estimate.

Resources

es		Cost Element		Skill		Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	P170 OT	HER ADMINISTRATIVE & PROFE	K399S	Building 776 Project	Linear	10,800.00	Hours
	Factors	6 CCAs	1	1800 Hours per year					
	751	OVERTIME BASE & PRE.	P170 OT	THER ADMINISTRATIVE & PROFE	K399S	Building 776 Project	Linear	2,160.00	Hours
	Factors	10800 Hours ST	0	0.2 20% Overtime					

Line Item OM07 - Environmental Technical Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Acts as a single point of contact for all environmental compliance issues within designated buildings, reviews and approves Non Routine Waste Origination Logs, supports regulatory area inspections with CDPHE, EPA, DOE, and RFETS, and completes the appropriate pre- and post-status documents, maintains the Environmental Central File System for designated buildings, identifies corrective measures to environmental compliance related deficiencies and prepares environmental compliance action plans, maintains the Waste Stream and Residue Characterization book for the building, initiates the reactive chemical management plan ensuring the proper notification are made and that the treatment complies with the building authorization basis, documents any generator treatment performed in the building, and ensures that the building is supplied with adequate spill response equipment.

Resources

es			Cost Element				Skill			Department		Curve	<i>Ouantity</i>	Units
	A5H	SUBCON	TRACTED SRVS		E050	ENVIRO	NMENTAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	288.000.00	Dollars
	Factors	2	Environmental	Technologist	ts	1800	hours per vear		80	Dollars per hour RMRS Corporate				
	A5H	SUBCON	TRACTED SRVS		P170	OTHER	ADMINISTRATIVE & PROFE	K399S	Buildina	776 Proiect		Linear	166.400.00	Dollars
	Factors	1	Administrative 3	Support Pers	sonnel	40	Hours per Week		52	Weeks per vear	80	Dollars per he	our RMRS Corp	orate

Line Item OM08 - Utility Management

BOE Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item

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Rockv Flats Closure Project Baseline Cost and Basis of Estimate

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Baseline Devl ter 1DAB

Starts In FY

level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Utility management includes the Utilities Manager and the Utilities Foreman, as follows:

The Utilities Manager oversees facility utility operations per DOE and Site Standards. Specific responsibilities include ensuring that utility systems and equipment function safely and properly; that surveillances are performed in a safe and timely manner; that applicable training and qualification standards are met by management, technical, and Stationary Operating Engineers; and that all activities are in concert with the plant, building, and programs objectives.

The Utilities Foreman directly oversees the daily SOE activities and ensures that all required activities are conducted in a safe, timely, and proper manner, and in accordance with management quidance.

Also included in this element are resources to cover the LO/TO requirements.

Resources

s			Cost Element			Skill			Department	Cur	rve	Quantity	Units
	A5H	SUBCON	NTRACTED SRVS	P170	OTHER	R ADMINISTRATIVE & PROFE	K399S	Buildina	776 Proiect	Line	ear	153.000.00	Dollars
	Factors	85	dollars per hour		1	Utiltiv Specialist		1800	Hours/ea				

Line Item OM09 - SOE's

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0

Item Desc - The Stationary Operating Engineers (SOEs) are required to be present around the clock and are on various jump shifts, 365 days per year to monitor both the control room and compressor house, and to make shiftly rounds. One SOE is required to cover the control room and one SOE is required to cover the compressor house and make shiftly rounds. Overtime is added to account for shift turnover, training, and absences due to illness, or vacations. SOEs also perform the following surveillances during their shiftly rounds: Photohelics; EGEN; Fan Operatibity; Oxygen Analyzers; and Hepa Filter Differential Pressure.

Resources

s		Cost Element		Skill			Department		Curve	Quantity	Units
	750 S	TRAIGHT TIME BASE	R070	WASTE TREATMENT OPERATOR	A KD10H	776 Cd	mplex Steelworkers		Linear	22.942.44	Hours
-	Factors	0.873 In FY-98 approximately 87.3	3% of this	3 SOEs		24	Hours per day (over 3 shifts)	365	davs per vea	r (continuous co	verage)
	751 O	VERTIME BASE & PRE.	R070	WASTE TREATMENT OPERATOR	A KD10H	776 Cd	mplex Steelworkers		Linear	3.285.00	Hours
-	Factors	1 hours shift overlap (0.5 hrs	per SOE	3 shifts		3	SOEs	365	per vear		
	751 O	VERTIME BASE & PRE.	R070	WASTE TREATMENT OPERATOR	A KD10H	776 Cd	mplex Steelworkers		Linear	1.997.28	Hours
	Factors	0.076 approximately 7.6% of the contract of th	overage	3 SOEs		24	Hours per day	365	days per yea	r to provide tota	I

Line Item OM10 - Shift & Operations Orders

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Operations and Shift Orders Administration includes ongoing maintenance of all active building operations and shift orders by an experienced technical writer-administrator. Generally, the administrator updates existing orders in response to the building's day-to-day operating demands and in accordance with standing plant policies and procedures. In some cases, the administrator may develop an original order. In addition, the administrator processes the orders in accordance with plant and DOE standards, maintains an accurate and current working file, and maintains an up-to-date Operations Orders Manual. The administrator works in conjunction with building professional staff and management, subject matter experts, and other technical writers in order to ensure the accuracy, timeliness, and thoroughness of the operations orders.

Resources

es		(Cost Element			Skill			Department	Curve	Ouantity	Units
	A57	LATA		P160	TECHNIC	AL WRITERS AND EDITOR	K399S	Buildina	776 Proiect	Linear	108.000.00	Dollars
	Factors	60	dollars per hour		1800	hours						
	A57	LATA		P160	TECHNIC	AL WRITERS AND EDITOR	K399S	Buildina	776 Proiect	Linear	7.560.00	Dollars
	Factors	0.07	7% overtime		60	dollars per hour		1800	hours straight time			

Line Item OM12 - Decontamination

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - RevO.

Item Desc -

Provide as needed decontamination support to support various operations in B776/777.

Resources Cost Element Skill	Department	Curve (Ouantity Units
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WBS No: 1DAB04 Activity ID: 1DXXX04400

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

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750 STRAIGHT TIME BASE	P090	INDUSTRIAL HYGIENISTS	K399S	Buildina 776 Proiect		Linear	180.00 Hours
Factors 1 Industrial Hygienist		9 Hours per day performing B	Be Decon	20 davs per vear	performina Be Decon		
750 STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworks	ers	Linear	180.00 Hours
Factors 1 RCT		9 hours per day Be Decon		20 davs performir	na Be decon per vear		
750 STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworks	ers	Linear	360.00 Hours
Factors 2 Process Specialists		9 hours per day for Be Decon	1	20 davs			
751 OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworks	ers	Linear	150.26 Hours
Factors 8 hours per week Pu Decon		52 weeks per year		0.3612 82/227 Days r	emaining		

Line Item OM14 - Management Assessment Program

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Coordination of Management Assessment Program for the 776/777 buildings. Reviews and tracks items identified through the performance of MAP's. Inputs actions into the PATS system and tracks to completion.

Resources

ces	Cost Element	Skill	Department	Curve	Ouantity	Units
	A53 E-2	G010 ADMINISTRATIVE ASSISTANTS	K399S Building 776 Project	Linear	124.800.00	Dollars

Factors 52 weeks per year 60 dollars per hour 40 hours per week coordinate/administer

Line Item OM15 - Custodial

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Custodial Support covers basic cleaning support including cleaning of locker rooms and restrooms, common areas, office areas, conference rooms. Tasks include floor maintenance (vacuuming, sweeping, mopping, and polishing), bathroom cleaning and stocking of supplies and materials, housekeeping, disposal of rubbish, dusting office furniture, and light outside cleaning and snow management.

Resources

rces	Cost Element		Skill	Department	Curve	Ouantity	Units
	750 STRAIGHT TIME BASE	L030	UTILITY WORKER	KD10H 776 Complex Steelworkers	Linear	5,400,00	Hours

Factors 3 Utility Workers 1800 Hours per year

Line Item OM16 - Laundry

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Laundry stocking includes sorting and distributing anti-c clothing within Buildings 776/777 and the B778 change room.

This pays for modesty clothing and anti-c clothing.

Resources

s		Cost Element	Skill			Department		Curve	Quantity Units
	750	STRAIGHT TIME BASE	L090	GENERAL LABORER	KD10H	776 Complex Steelworkers		Linear	786.00 Hours
1	Factors	524 hours		1.5 50% increase in needs over I	FY-99				
	750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers		Linear	624.00 Hours
1	Factors	1 Process Specialist		8 Hours Straight Time per weel	k	52 weeks per vear	1.5	50% increas	e in needs over FY-99
	751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers		Linear	1,248.00 Hours
1	Factors	2 Process Specialists		8 Hours per week		52 weeks per year	1.5	50% increas	e in needs over FY-99
	A5F	CSS FIXED PRICE	0000	NONE	K260S	Site Operations		Linear	720,000.00 Dollars

Factors 60000 Dollars/Month 12 Months

Line Item OM17 - Training

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Training Qualification for personnel attending courses required for job performance as defined in the Qualification Performance & Training records for each building specific department and skill code.

Education Reimbursement covers formal approved off-site educational programs and/or attendance at off-site training seminars that directly benefit the employees' performance.

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WBS Filter

Baseline Devl 1DAB

Starts In FY

The Training Coordinator ensures compliance with plant training standards, advises building management regarding training requirements, and provides guidance to the Training Scheduler for implementation of plantwide training standards.

The Training Scheduler provides logistics information regarding training sessions and schedules attendance of building personnel at required training courses.

Rad Ops Training funds support time spent in class to maintain sufficient qualifications.

Resources

s	Cost Element		Skill		Department	Curve	Ouantity Units
750	STRAIGHT TIME BASE	R070	WASTE TREATMENT OPERATOR A	KD10H	776 Complex Steelworkers	Linear	172.00 Hours
Factors	2 Personnel		86 Hours				
750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	1.656.00 Hours
Factors	18 Hours/quarterly module		23 RCTs		4 quarters		
750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	180.00 Hours
Factors	10 Personnel		18 Hours (RCRA)				
750	STRAIGHT TIME BASE	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	2.838.00 Hours
Factors	33 D&D Workers		86 hours each per vear genera	training			
751	OVERTIME BASE & PRE.	T060	D&D HAZ REDUC TECH / RISK RED	KD10H	776 Complex Steelworkers	Linear	1.290.00 Hours
Factors	15 D&D Workers		86 hours each per vear genera	training			
A5M	TRAVEL/TRAIN/RELOCAT	0000	NONE	K399S	Building 776 Proiect	Linear	35.000.00 Dollars
F	0500		40 Danasanal				

Factors 3500 \$/s per Education Reimbursement 10 Personnel

Line Item OM18 - Price Anderson Coordination

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity includes support for authorization, review, and processing of Price Anderson Amendment Act (PAAA) issues. These items include reviewing Occurrence Reports, Radiological Deficiency Reports (RDR), Facility assessments, audits and surveillance reports, and adverse trends and indicators. The PAAA Coordinator investigates and documents issues/events or conditions at the facility level to the degree deemed necessary by the PA Compliance Manager and/or the RMRS General Council. This may include such activities as attending fact-finding meetings, participating in root cause investigations, interviewing facility personnel, reviewing records, participating in the development of corrective actions and generating closure documentation. In addition, this line contains the work scope for the Commitments Tracking Coordinator who is responsible for tracking all external and internal commitments for B776/777 personnel. This includes Corrective Action Requests (CAR), Deficiency Reports (DR), Environmental Commitments, JCUSC Safety Concerns, Compliance Schedule Agreements (CSA), Short-Term Compliance Statements (STCS), and all DOE commitments. Responsible for ensuring status revision requests, interim certificates of completion, and final certificates of completion are submitted to site Commitments Tracking personnel as required.

Resources

es		(Cost Element			Skill			Department	Curve	Ouantity	Units
	A5H	SUBCON'	TRACTED SRVS	P170	OTHER	ADMINISTRATIVE & PROFE	K399S	Buildina '	776 Proiect	Linear	72.800.00	Dollars
	Factors	20	Hours per week coordinating	a Price	52	weeks per vear		70	dollars per hour			
	A5H	SUBCON'	TRACTED SRVS	P170	OTHER	ADMINISTRATIVE & PROFE	K399S	Buildina '	776 Proiect	Linear	65.520.00	Dollars
	Factors	18	hours per week for committee	ments	52	weeks per year		70	dollars per hour			

Line Item SYS - Contingency And Escalation

Line Item T02 - Radiological Engineering

BOE

Resources

es	Cost Element		Skill		Department		Curve	Quantity	Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	1,105,733.00	Dollars
1	Factors	1105733 Dollars							
	ESC	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	452,355.70	Dollars

Factors 452356 Dollars

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Provides support services for ALARA, IWCPs, Building Assessments, Operation Orders, Technical Bases Documents, Radiological Deficiency Reports, Radiological Work Permits, Device/Source Audit Deliverables, ALARA job reviews and property/waste release evaluation database maintenance and Radiation Protection Program maintenance.

Resources Cost Element Skill Department Curve Quantity Units		Skill	Department	Curve	Ouantity	Units
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Rocky Flats Closure Proiect Proiect Baseline Cost and Basis of Estimate Proiect WBS Filter Baseline Devl

Activity Filter * Starts In FY *

A5H SUBCONTRACTED SRVS E130 OTHER ENGINEERS K399S Building 776 Project Linear 306.000.00 Dollars

Factors 2 Radiological Safety Engineer 1800 hours per year 85 per hour

Line Item T03 - Stepoff Pad

1DAB04

1DXXX04400

BOE

WBS No:

Activity ID:

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0

Item Desc - This activity encompasses the radiological monitoring of equipment exiting the Radiological Controlled Areas. The proper release documentation of material and equipment leaving the radiological controlled areas is the responsibility of the set-off pad RCT. The step-off pad RCT responds to any contamination monitor alarm from personnel self-monitoring or personnel requesting help for self-monitoring. Equipment and personnel monitoring are required by the Site Radiological Control Manual and DOE Order 5400.5 to ensure the safety of the workers, the public and the environment. The step-off pad RCT also performance tests the instruments used at the step-off pad on a daily basis.

Resources

es		Cost Element		Skill		Department	Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	2.340.00	Hours
	Factors	1 RCT		9 hrs per day		52 weeks	5 davs per wee	ek	
	751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	234.00	Hours
	Factors	2340 Total ST hours		0.1 10% Over-Time		1 RCT			

Line Item T04 - Contamination Control

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Identification of contamination sources to prevent the spreading of contamination in controlled areas and individual exposures. Detect contamination in cold areas; provide technical information on amount of contamination and degree of risk an corrective actions. Respond to SAAM alarms on off normal conditions, and respond to loss of contamination control issues, i.e., Radiological contamination of gloves, booties, and personnel. Perform prejob surveys on misc. minor tasks to ensure the Radiological Work Permits are adequate to control the work performed. Also, decontamination/contamination area rollback will be performed to increase work efficiency, reduce laundry costs, and minimize the generation of of radioactive waste. The process will include walls and floors, as well as all materials and equipment in the area to be downgraded, to be surveyed and/or decontaminated. A representative sample of rooms slated for decontamination is as follows: Rooms: 134E; 430; 463; 452; 131; 134; and 154A.

Resources

es		Cost Element		Sk	äll		Department	Curve	<i>Ouantity</i>	Units
	750	STRAIGHT TIME BASE	T050	RADIATION C	ONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	468.00	Hours
	Factors	2 Hours/day		234 wo	rking AWS days					
	751	OVERTIME BASE & PRE	. T050	RADIATION C	ONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	46.80	Hours
	Factors	0.1 10% Overtim	e	468 Str	aight Time Hours					

Line Item T05 - Radiological Work Permit

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Writing and distribution of Radiological Work Permits which define the safe radiological working parameters. Includes maintenance of a filing system to control the number of RWPs released and tracks returns to the RWP office through a daily log. Archiving of expired Radiological Work Permits and their supporting documentation is also performed. Issues and tracks return of Electronic Pocket Dosimeters (EPD). Records and tracks individual doses from EPDs. Files and archives all radiological surveys.

Resource

ces		Cost Element		Skill		Department	Curve	Quantity	Units	
	750	STRAIGHT TIME BASE	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	2,106.00	Hours	
	Factors	1 RCT		9 Hours per day		234 Working AWS days				
	751	OVERTIME BASE & PRE.	T050	RADIATION CONTROL TECHNOLIGI	KD10H	776 Complex Steelworkers	Linear	210.60	Hours	
	Factors	0.1 10% Overtime		2106 Straight Time Hours						

Line Item T06 - ALARA Committee

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Addresses radiological safety concerns and issues that have been identified by the building, programs, or an activity that was conducted. The Chairperson shall be the Operations/Facility Manager, or designee, and the committee shall consist of representatives from departments that support the area. Performs evaluations to determine whether activities are being conducted in accordance with the ALARA Program and implementing procedures. Formulates and coordinates the implementation of the Project Area ALARA goals. Meets monthly on any actions taken to resolve radiological issues, noteworthy ALARA

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WBS No: 1DAB04 Activity ID: 1DXXX04400

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect Baseline Devl WBS Filter

1DAB

Activity Filter Starts In FY accomplishments, ALARA concerns, etc.. Generates a status report of items discussed and/or acted upon. Includes walk-downs, meetings, reporting, etc..

Resources

es	Cost Element	Skill	Department	Curve	Ouantity Units
	750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIGI	KD10H 776 Complex Steelworkers	Linear	12.00 Hours
	Factors 1 hour per monthly meeting	1 RCT	12 months		
	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	24.00 Hours
	Factors 1 hour per monthly meeting	2 Pipefitters	12 Months		
	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	KD10H 776 Complex Steelworkers	Linear	24.00 Hours
	Factors 1 hours per monthly meeting	2 Process Specialists	12 months		

Line Item T07 - Analytical Lab - DAC

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Lab Support includes Offsite Commercial Support, Hot/Mixed Lab Support, Sample Team Support, and Mobile Lab Support . These activites are described below:

DAC Analytical Support - Gross Alpha analysis for the following items:

- 1) Gross Alpha (OS01-02)
- 2) Radiological Screening (OS03-04)
- 3) Gross Alpha/Beta (OSO5-17)
- 4) Gross Alpha/Beta Air Filters (OS18-20)
- 5) Air Filter Loeading, Unloading, and Compositing (OS-21)

The type and quantity of the analysis performed is dependent on project customer needs as well as the laboratory capability and capacity.

Resource

rces		Cost Element		Skill	Department	Curve	Ouantity	Units
	A5H	SUBCONTRACTED SRVS	0000	NONE	K267S Analytical Laboratory Services	Linear	22.00	Dollars

22 dollars per DAC Sample Factors

Line Item T08 - Nuclear Safety Support

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This function is performed by Nuclear Safety Engineering which provides nuclear technical support, facility safety analysis, Unreviewed Safety Question Determination (USQD) of activities and documents submitted for review, participation in the Operational Review Committee (ORC) process to clarify and advise members on issues concerning USQDs, Safety Evaluation Screens (SESs), and Operational Safety Requirements/Technical Safety Requirements (OSR/TSR) page changes and guidance. Historically, three engineers have been required to perform this scope.

Resource

rces		Cost Element		Skill	Department	Curve	Quantity	Units
	A52	TENERA	E080	NUCLEAR (CRITICALITY) ENGINEER	K399S Building 776 Project	Linear	306.000.00	Dollars

Factors 2 Nuclear Safety Engineer

dollars per hour

1800 hours per year each

Line Item T10 - Electrical Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Electrical Engineering serves as Subject Matter Expert on all electrical power related equipment and systems, supports IWCP, performs engineering operability evaluations on an as-needed basis; supports authorization basis activities, and serves as liaison/Point of Contact with RMRS Central Engineering on building engineering matters. Additionally, This position will provide engineering support for procedure development, system walkdown and one line drawing development, labeling of key components and development of system descriptions.

Resources

s		С	ost Element			Skill			Department		Curve	Quantity	Units
	A52	TENERA		E040	ELECTR	CAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	81.600.00	Dollars
I	Factors .	. 1	Electrical Engineer		. 12	packages per vear		80	hours per design modification	85	dollars per hou	ır	
L	A52	TENERA		E040	ELECTR	CAL ENGINEERS	K399S	Building	776 Proiect		Linear	35.700.00	Dollars
I	Factors .	1	Electrical engineers		12	EOEs per vear		35	hours per Engineering Operability	85	dollars per hou	ır	
L	A52	TENERA		E040	ELECTR	CAL ENGINEERS	K399S	Buildina	776 Proiect		Linear	53.040.00	Dollars
I	Factors	2	LO/TOs per week		6	hours support for Lockout/Ta	agout	52	Weeks per vear	85	dollars per hou	ır	

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Rockv Flats Closure Project Baseline Cost and Basis of Estimate

Proiect Baseline Devl WBS Filter 1DAB

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A52	TENERA		E040	ELECTRIC	CAL ENGINEERS	K399S	Building	776 Proiect		Linear	51.000.00 Dollars
Factors	1	Electrical Engineer		. 15	ESPs per vear		40	hours per Engineering Support	85	dollars per hour	
A57	LATA		E040	ELECTRIC	CAL ENGINEERS	K399S	Building	776 Proiect		Linear	28.000.00 Dollars
Factors	70	dollars per hour		10	hours support to Standard V	Vork	40	SWPs requiring EE support			
A57	LATA		E040	ELECTRIC	CAL ENGINEERS	K399S	Building	776 Proiect		Linear	14.400.00 Dollars
Factors	1	electrical engineer		10	calculation in support of vari	ous	24	hours per electrical calculation	60	dollars per hour	

Line Item T11 - Mechanical Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0

Item Desc - Mechanical Engineering serves as a subject matter expert on all mechanical equipment related systems. Additionally, this discipline will provide engineering support for procedure development, system walkdowns, and one line drawing development, labeling of key components, and development of system descriptions.

Resources

s		Cost Element		Skill			Department	Curve	Quantity	Units
	A52 TENER	XA.	E070 M	ECHANICAL ENGINEERS	K399S	Buildina	776 Proiect	Linear	153.000.00	Dollars
	Factors 1	Mechanical Engineer		1800 Hours per vear		85	dollars per hour			
	A57 LATA		E070 M	ECHANICAL ENGINEERS	K399S	Buildina	776 Proiect	Linear	126.000.00	Dollars
	Factors 70	dollars per hour		1 Mechanical Engineers		1800	hours each per year			

Line Item T13 - Fire Protection Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Fire Protection Engineering provides technical support and fire hazards analysis for the building.

Resources

s	Cost Element		Skill			Department	Curve	Quantity	Units	
	A52	TENERA		E130	OTHER ENGINEERS	K252S	Engineering	Linear	153,000.00	Dollars
1	Factors	85	dollars per hour		1800 hours					

Line Item T14 - Emergency Preparedness

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - Administers the implementation of the RFETS Emergency Preparedness Program for the protection of personnel, the public, and the environment during emergency response. Develops and implements of the Building Emergency Program, provides technical assistance to building management for development and conduct of building drills, provides procedure review and approval and trains the Building Emergency Preparedness Personnel on new procedures and development processes.

A. Develop/conduct building emergency drills.

B./C./D. Drill controller/evaluator.

Resources

es	Cost Element	Skill	Department	Curve	Ouantity Units
	750 STRAIGHT TIME BASE	T050 RADIATION CONTROL TECHNOLIC	GI KD10H 776 Complex Steelworkers	Linear	48.00 Hours
	Factors 2 RCT	2 hours per drill	12 Drills per vear		
	750 STRAIGHT TIME BASE	T060 D&D HAZ REDUC TECH / RISK RED	D KD10H 776 Complex Steelworkers	Linear	96.00 Hours
	Factors 4 Process Specialist	2 hours per drill	12 Drills per vear		
	A52 TENERA	P170 OTHER ADMINISTRATIVE & PROFE	E K399S Building 776 Project	Linear	85.500.00 Dollars
	Factors 95 \$'s/Hour	1800 Hours	0.5 Bepa Consultant		

Line Item T15 - Procedures

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - The Procedure Administration function includes development, updates, modifications and issuance of procedures to operate the facility.

Resources	Cost Element	Skill	Department	Curve	Ouantity	Units
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 WBS No:
 1DAB04
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Activity Filter * Starts In FY *

A57 LATA P160 TECHNICAL WRITERS AND EDITOR K399S Building 776 Project Linear 117.000.00 Dollars

Factors 1 Procedure Writer 65 dollars per hour 1800 hours each per year

Line Item T16 - Criticality Engineering

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - The Criticality Engineer provides the building with criticality safety analysis that is in conformance to applicable standards, rules, and orders to provide guidance in the form of limits and procedures which ensure the subcriticality of the building's fissile material handling, processing, and storage operations. Two Criticality Engineers are required plus 0.5 for the Lead Criticality Engineer.

Resources

ces	Cost Element	Skill	Department	Curve	Ouantity	Units
	A5H SUBCONTRACTED SRVS	E080 NUCLEAR (CRITICALITY) ENGINEER	K399S Building 776 Project	Linear	382.500.00	Dollars

Factors 125 dollars per hour 1800 hours each per year 1.7 Criticality Safety Engineers

Line Item T17 - Plan of the Week/DOD

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - The Plan of the Week (POW) is a meeting held each week to plan all work activities for the coming week, discuss the current Facility condition, radiological concerns, to update the activity schedule, set priorities, and allocate resources. The Plan of the Week coordinator is funded in this activity.

Resource

rces		Cost Element		Skill		Department	Curve	Quantity	Units	ı
	750	STRAIGHT TIME BASE	P170	OTHER ADMINISTRATIVE & PROFE	R100S	RMRS Salaried	Linear	936.00	Hours	ı

Factors 18 Hours per week 52 Weeks per year

Line Item T19 - Project Safety Officer

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary

Item Desc - A. Perform required Health and Safety activities. Identify hazards and potential accident producing situations within the work place. Review work packages, engineering work orders and equipment installation or maintenance for safety systems and interlock functions. Promote and maintain awareness through employee participation, enforcement of safety rules, accident tracking, and trending and corrective actions.

B. ASME registration and training required to perform required Health and Safety activities above.

Resource

ces		Cost Element		Skill		Department	Curve	Ouantity	Units
	A5H	SUBCONTRACTED SRVS	P090	INDUSTRIAL HYGIENISTS	K399S	Building 776 Project	Linear	153.000.00	Dollars

Factors 1 Industrial Hygienist 1800 Hours per year 85 dollars per hour

Line Item T20 - Plant Review Committee

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Plant Review Committee is a new requirement being planned for in FY-99.

Resources

es		Cost Element			Skill			Department		Curve	Ouantity	Units
	750	STRAIGHT TIME BASE	P170	OTHER A	ADMINISTRATIVE & PROFE	R100S	RMRS S	alaried		Linear	104.00	Hours
	Factors	2 hours per week		52	weeks per year							
	A5H	SUBCONTRACTED SRVS	E080	NUCLEA	R (CRITICALITY) ENGINEER	K399S	Building	776 Project		Linear	8,840.00	Dollars
	Factors	 Nuclear Safety Professional 	I	2	hours per week		52	Weeks per year	85	dollars per hou	ır	
	A5H	SUBCONTRACTED SRVS	E110	QUALITY	CONTROL ENGINEERS	K399S	Building	776 Project		Linear	8,840.00	Dollars
	Factors	1 OA Professional		2	Hours per week		52	weeks ner vear	85	dollars per hou	ır	

Line Item T21 - Health Physics And Instrumentation

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc -

A. Leased Labor cost of calibrations of instruments used by building radiation control personnel and other building personnel: Alphamets - 114 hrs, A-100 - 176 hrs, Mircorem - 90 hrs, DRDs - 46 hrs, SAC-4 - 160 hrs, Electras - 441 hrs, Hi Vol Samplers - 34 Hrs, Lo Vol Samplers - 40 hrs, Ludlum 12-1A - 224

Rockv Flats Closure Project Baseline Cost and Basis of Estimate

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Starts In FY

Activity Filter *

hrs, Ludlum 12-4 - 247 hrs, Ludlum 31 - 7 hrs, Ludlum 2 - 5 hrs, PCM-2 - 1100 hrs, RO-20 - 605 hrs, SAIC AP-2 - 16 hrs, for a total of 3305 hrs

B. Parts, supplies and overhead costs of calibration of instruments used by building radiation control personnel and other building personnel: Balances, O2
Analyzers, magnahelics, photohelics, pressure differentials, torque wrenches, PCM-2s, Ludlums, etc.

Resources

WBS No:

Activity ID:

es		C	Cost Element			Skill		Department	Curve	Quantity	Units
	A5C	SUPPLIES	3	0000	NONE		K399S	Building 776 Project	Linear	18.000.00	Dollars
_	Factors	18000	Dollars for supplies								
	A5H	SUBCONT	TRACTED SRVS	P170	OTHER A	ADMINISTRATIVE & PROFE	K399S	Building 776 Project	Linear	230.934.00	Dollars
	Factors	66	dollars per hour		3499	Hours					

Line Item T22 - Radiological Management

1DAB04

1DXXX04400

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc -

Resources

s	Cost Element	Skill	Department	Curve	Ouantity Units
L	750 STRAIGHT TIME BASE	M010 FOREMEN / TEAM LEADS / GROUP	R100S RMRS Salaried	Linear	3.600.00 Hours
F	actors 2 Radiological Foreman	1800 Hours each		_	
L	750 STRAIGHT TIME BASE	M010 FOREMEN / TEAM LEADS / GROUP	R100S RMRS Salaried	Linear	1.000.00 Hours
F	actors 1 Off-shift Supervisor	1000 hours per vear		_	
L	751 OVERTIME BASE & PRE.	M010 FOREMEN / TEAM LEADS / GROUP	R100S RMRS Salaried	Linear	540.00 Hours
F	actors 0.15 15% Overtime	3600 hours Straight time		_	
	A5C SUPPLIES	0000 NONE	K399S Building 776 Project	Linear	25.000.00 Dollars

Factors 25000 Misc Supplies

Line Item T23 - Criticality Safety Officer

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc -

The Criticality Safety Officer performs the duties set forth in the Nuclear Criticality Safety Manual including serving as liaison for the criticality safety matters between organizations that have custody of fissionable material and all other organizations, coordination of requests for Critical Safety Engineer, and preparation of criticality safety limit postings. Also included is the annual assessments.

Resources

rces		C	Cost Element			Skill		Department	Curve	Quantity	Units
	A5H	SUBCONT	TRACTED SRVS	P170	OTHER A	DMINISTRATIVE & PROFE	R100S	RMRS Salaried	Linear	153,000.00	Dollars
	Factors	1800	Hours/ea		85	dollars per hour					

Line Item T24 - Occurrence Reporting

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - This activity consists of support required to maintain occurrence reporting requirements, including preparing and uploading of notifications, conducting investigations and critiques as necessary, processing 10-day update reports, preparing root cause analysis reports and process final reports for DOE approval. In addition, required reading is included in this work scope.

Resources

s		Cost Element		Skill		Department	Curve	Ouantity	Units
	A5H SUE	BCONTRACTED SRVS	P170	OTHER ADMINISTRATIVE & PROFE	K399S	Building 776 Project	Linear	76.500.00	Dollars

Factors 900 Hours per year 1 Occurrence Reporting Professional 85 dollars per hour

Line Item T27 - Chemical Control Officer

BOE

Historical Data Source - The historical data is from the FY98 actual costs for technical support activity. These costs have been factored to the line item level based on FY99 line item to total technical support quotients. The detailed factoring spreadsheet can be found in B776/777 FY99 Project Summary Document - Rev 0.

Item Desc - Serves as the single point of contact for chemical management within the Building 776/777 complex, maintains the Chemical Management Plan, maintains a list of chemical storage sites, maintains the Chemical Management Data Base, tracks the quantities of chemicals in the Building 776/777 complex and conducts bi-annual wall-to-wall inventories and random inventories as needed, reviews and approves requisitions for chemicals, maintains Material Safety Data Sheets for chemicals stored in the Building 776/777 complex, works with managers, supervisors and other staff to develop and implement appropriate

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WBS No: 1DAB04 Proiect Baseline Devl **Rocky Flats Closure Project** Activity ID: 1DXXX04400 WBS Filter 1DAB **Baseline Cost and Basis of Estimate** Activity Filter chemical procedures and practices and performs the monthly inspections of flammable cabinets. Resources Cost Element Department Curve A5H SUBCONTRACTED SRVS P170 OTHER ADMINISTRATIVE & PROFE | K399S | Building 776 Project Linear

Fac	ctors 1 C	hemical Control Officer	1800 H	Hours			85	dollars p	er hour					
WBS No: 1DAB	05	_ Title: B776/777 Author	zation Basis											
Activity ID: 1DF	0500AB1	d - AB Mainten	nance Ad	ctivities					Cost Risk	2 Schedule F	Risk 3			
Line Item		Description	Qu	uantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
						Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
B01	B01 AB Annual Update May 22-Jul 23				each	HC	0	0	0	102.745	0	102.745	0	102.745
	Total for Activity 1DF05							0	0	102.745	0	102.745	0	102.745

Line Item B01 - AB Annual Update May 22-Jul 23

BOE

Historical Data Source - Development of AB Implementation Plan and BIO Rev 1 (FY-99)

Item Desc - Project Management activities associated with changes necessary to perform annual update and inclusion of Plasma arc and laser cutting technologies into the BIO analysis.

Breakdown of Historical Data:

Item - A/B Revision

Units - ea

Unit Cost - \$1,785k

Unit Cost Adjustment factor - (\$833.6k)

Revised Unit Cost - \$951.4k

Basis for adjustment - This revision is to modify the existing BIO for B776/777. The \$1,750k is the TEC for AB Implementation performed in FY-99. Although all sections will require review due to this change, it is expected that only portions of the AB will require revision.

Resources

es		Co	st Element			Skill			Department		Curve	Quantity	Units
L	A52	TENERA		0000	NONE		K399S	Buildina	776 Proiect		Linear	101.745.00	Dollars
	Factors	3.5	dedicated nuc safety engine	eers	9	hours per day project suppor	t	85	dollars per hour	38	davs		
Ĺ	A5C	SUPPLIES		0000	NONE		K399S	Buildina	776 Proiect		Linear	1.000.00	Dollars

dollars for supplies and copy service **Factors** Dollars 1000

Description: B776/777 Landlord - AB Maintenance/Annual Lindate

ACTIVITY ID. IDIO	Description. Bi 10/111 Landold - AB Ivial	illelialice/P	COST RISK Z Schedule RISK 3									
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
B01 Annual Update 1.00 each HC 0						0	0	101.980	0	101.980	0	101.980
	Tot	0	0	101.980	0	101.980	0	101.980				

Line Item B01 - Annual Update

BOE

Historical Data Source - Development of AB Implementation Plan and BIO Rev 1 (FY-99)

Item Desc - Project Management activities associated with changes necessary to perform annual update and inclusion of Plasma arc and laser cutting technologies into the BIO analysis.

Breakdown of Historical Data:

Item - A/B Revision

Units - ea

Unit Cost - \$1,785k

Unit Cost Adjustment factor - (\$833.6k)

Revised Unit Cost - \$951.4k

Basis for adjustment - This revision is to modify the existing BIO for B776/777. The \$1,750k is the TEC for AB Implementation performed in FY-99. Although all sections will require review due to this change, it is expected that only portions of the AB will require revision.

Resources

es	С	ost Element			Skill	Department				Quantity	Units
A52	TENERA		0000	NONE	K399S	Building	776 Proiect		Linear	100.980.00	Dollars
Factor	s 1	Dollars		9	hours per day project support	44	davs	85	dollars per ho	ur	
	3	dedicated Nuclear Safety E	naineers								
A5C	SLIDDI IES	!	0000	NONE	K300S	Building	776 Project		Linear	1 000 00	Dollars

Factors 1000 dollars for supplies and copy service

Activity ID: 1DF0	0501A00	Description: FY-01 B776/777 Authorization	n Basis						Cost Risk	2 Schedule R	Risk 3		
Line Item		Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
					Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
N1R0500A01	Annual Update	<u> </u>	1.00	each	НС	0	0	0	750.000	0	750.000	0	750.000

2 Schedule Risk

Starts In FY

153.000.00 Dollars

Units

WBS No: 1DAB05 Activity ID: 1DF0501A00

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter Andreiden Filance Baseline Devl 1DAB

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						Acm	uvrinei		SH	11 IS 111 I' I	
SYS	Contingency And Escalation	1.00 ea	EE	0	0	0	0	39.675	39.675	0	39.675
•	To	Total for Activity 1DF0501A00:					750.000	39.675	789.675	0	789.675

Line Item N1R0500A01 - Annual Update

Historical Data Source - B776/777 BIO Implementation Rev 1. BOE

Item Desc - Annual Update to the B776/777 BIO

Breakdown of Historical Data:

Item - Implementation of B776/777 BIO

Units - ea

Unit Cost - \$1,785k

Unit Cost Adjustment factor - (\$1,035k)

Revised Unit Cost - \$750k

Basis for adjustment - This is not a complete revision to the existing BIO. Each section will require review and revision as necessary based on further reductions to B776/777 from FY-00. The facility condition at the end of FY-00 will determine the necessary adjustments to the A/B document.

Resources

Cost Flement A5H SUBCONTRACTED SRVS 0000 NONE 750.000.00 Dollars K399S Building 776 Project Linear

750000 Dollars Factors

Line Item SYS - Contingency And Escalation

BOE

Resources

es		Cost Element		Skill		Department	Curve	Quantity	Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	23.904.32	Dollars
	Factors	23904.3 Dollars							
	ESC	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	15.770.82	Dollars

Factors 15770.8 Dollars

Activity ID: 1DE0502RM0 Description: FY-02 B776/777 Authorization Basis Cost Pick 2 Schadula Pick

ACTIVITY ID. IDI	Description. 11-02 B170/117 Authorization		Cost Risk Z Schedule Risk 3									
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
N1R0500A01	Annual Update	1.00	each	HC	0	0	0	500.000	0	500.000	0	500.000
SYS	Contingency And Escalation	1.00	ea	EE	0	0	0	0	74.539	74.539	0	74.539
	Tot	al for Activi	ity 1DF0502F	RMO:		0	0	500.000	74.539	574.539	0	574.539

Line Item N1R0500A01 - Annual Update

BOE

Historical Data Source - B776/777 BIO Implementation Rev 1.

Item Desc - Annual Update to the B776/777 BIO

Breakdown of Historical Data:

Item - Implementation of B776/777 BIO

Units - ea

Unit Cost - \$1,785k

Unit Cost Adjustment factor - (\$1,285k)

Revised Unit Cost - \$500k

Basis for adjustment - This is not a complete revision to the existing BIO. Each section will require review and revision as necessary based on further

reductions to B776/777 from FY-00. The facility condition at the end of FY-00 will determine the necessary adjustments to the A/B document.

Resource

rces		Cost Element		Skill	Department	Curve	Quantity	Units
	A5H	SUBCONTRACTED SRVS	0000	NONE	K399S Building 776 Project	Linear	500.000.00	Dollars

Factors 500000 Dollars

Line Item SYS - Contingency And Escalation

BOE

Resources

es	Cost Element		Skill		Department	Curve	Quantity	Units
CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	51.173.44	Dollars
Factors	51173.4 Dollars							
ESC	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	23.365.72	Dollars

Factors 23365.7 Dollars

Activity ID: 1DE0503DM0 Description: FY-03 B776/777 Authorization Basis

Activity ID: 1DF	Description: FY-03 B776/777 Authorization	on Basis						Cost Risk	2 Schedule R	risk 3		
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
	-			Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
N1R0500A01	Annual Update	1.00	each	нс	0	0	0	500.000	0	500.000	0	500.000

WBS No: 1DAB05 Activity ID: 1DF0503RM0

Rocky Flats Closure Project Baseline Cost and Basis of Estimate

Proiect WBS Filter Baseline Devl 1DAB

		Baseline	Cost an	id Basis of Estima		Activity	T717. *		Starts In	FY *	
SYS	Contingency And Escalation	1.00 ea	EE	0	0	0	0	138.277	138.277	0	138.277
		Total for Activity 1DF0503	3RM0:		0	0	500.000	138.277	638.277	0	638.277

Line Item N1R0500A01 - Annual Update

BOE

Historical Data Source - B776/777 BIO Implementation Rev 1.

Item Desc - Annual Update to the B776/777 BIO

Breakdown of Historical Data:

Item - Implementation of B776/777 BIO

Units - ea

Unit Cost - \$1,785k

Unit Cost Adjustment factor - (\$1,285k)

Revised Unit Cost - \$500k

Basis for adjustment - This is not a complete revision to the existing BIO. Each section will require review and revision as necessary based on further reductions to B776/777 from FY-00. The facility condition at the end of FY-00 will determine the necessary adjustments to the A/B document.

Resource

ırces	Cost Element	Skill	Department	Curve	Quantity Units
	A5H SUBCONTRACTED SRVS	0000 NONE	K399S Building 776 Project	Linear	500.000.00 Dollars

500000 Dollars Factors

Line Item SYS - Contingency And Escalation

BOE

Resources

Line Item

N1R0500A01

es		Cost Element		Skill		Department	Curve	Quantity	Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	99.933.87	Dollars
	Factors	99933.9 Dollars							
	ESC	ESCALATION	0000	NONE	7DEPT	No Department	Linear	38 342 63	Dollars

Labor

Hours/Unit

0

Labor Hours

Total

0

0

0

Labor Cost

Total

0

Factors 38342.6 Dollars

Annual Update

Activity ID: 1DF0504RM0

Description: FY-04 B776/777 Authorization Basis

Ouantity

0.50 each

Total for Activity 1DF0504RM0:

1.00 ea

Units

BOE

Type

HC

EE

2 Schedule Rish Cost Risk

Materials/Sub

Cost

250.000

250.000

2 Scheaule K	isk 3		
Contingency & Escalation	Total Prime	Burden Cost	Total Cost

0

0

0

250.000

285 629

35.629

250.000

35.629

285 629

0

35.629

35 629

Line Item N1R0500A01 - Annual Update

BOE

SYS

Historical Data Source - B776/777 BIO Implementation Rev 1.

Description

Item Desc - Annual Update to the B776/777 BIO

Breakdown of Historical Data:

Contingency And Escalation

Item - Implementation of B776/777 BIO

Units - ea

Unit Cost - \$1,785k

Unit Cost Adjustment factor - (\$1,285k)

Revised Unit Cost - \$500k

Basis for adjustment - This is not a complete revision to the existing BIO. Each section will require review and revision as necessary based on further reductions to B776/777 from FY-00. The facility condition at the end of FY-00 will determine the necessary adjustments to the A/B document.

Resource

rces		Cost Element		Skill		Department	Curve	Quantity	Units
	A5H	SUBCONTRACTED SRVS	0000	NONE	K399S	Building 776 Project	Linear	500.000.00	Dollars

500000 Dollars Factors

Line Item SYS - Contingency And Escalation

BOE

Resources

ces		Cost Element		Skill		Department	Curve	Quantity	Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	11.624.55	Dollars
	Factors	11624.6 Dollars							
	ESC	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	24.004.07	Dollars

Factors 24004.1 Dollars

Activity ID: 1DYYY504PM Description: FY-05 B776/777 Authorization Basis

Activity ID: 1D)	(XX504RM Description: FY-05 B776/777 Authorization)	n Basis						Cost Risk 2 Schedule Risk 3				
Line Item	Description	Quantity	Units	BOE	Labor	Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
				Type	Hours/Unit	Total	Total	Cost	& Escalation	Cost		
N1R0500A01	Annual Update	0.50	each	нс	0	0	0	248.908	0	248.908	0	248.908

Baseline Devl Proiect **Rocky Flats Closure Project** WBS Filter 1DAB **Baseline Cost and Basis of Estimate**

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SYS	Contingency And Escalation	1.00	ea EE	0	0	0	0	132.815	132.815	0	132.	815
	Tota	al for Activit	tv 1DXXX504RM:		0	0	248.908	132.815	381.723	0	381.	723

Line Item N1R0500A01 - Annual Update

1DAB05

1DXXX504RM

Historical Data Source - B776/777 BIO Implementation Rev 1. BOE

Item Desc - Annual Update to the B776/777 BIO Breakdown of Historical Data:

Item - Implementation of B776/777 BIO

Units - ea

Unit Cost - \$1,785k

Unit Cost Adjustment factor - (\$1,285k)

Revised Unit Cost - \$500k

Basis for adjustment - This is not a complete revision to the existing BIO. Each section will require review and revision as necessary based on further reductions to B776/777 from FY-00. The facility condition at the end of FY-00 will determine the necessary adjustments to the A/B document.

Resources

WBS No:

Activity ID:

es	Cost Element	Skill	Department	Curve	Ouantity Units
	A5H SUBCONTRACTED SRVS	0000 NONE	K399S Building 776 Project	Linear	500.000.00 Dollars
	Factors 500000 Dollars				

Line Item SYS - Contingency And Escalation

BOE

Resources

ces		Cost Element	Skill			Department	Curve	Quantity	Units
	CON	CONTINGENCY	0000	NONE	ZDEPT	No Department	Linear	94.254.96	Dollars
	Factors	94255 Dollars							
	ESC	ESCALATION	0000	NONE	ZDEPT	No Department	Linear	38.559.75	Dollars

Factors 38559.8 Dollars

Report Totals:

Labor Hours	Labor Cost	Materials/ Sub	Contingency	Total Prime	Burden Cost	Total Cost
Total	Total	Cost	& Escalation	Cost		
517.267	12.944.022	29.326.716	7.842.347	50.113.085	4.958.579	55.071.664

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